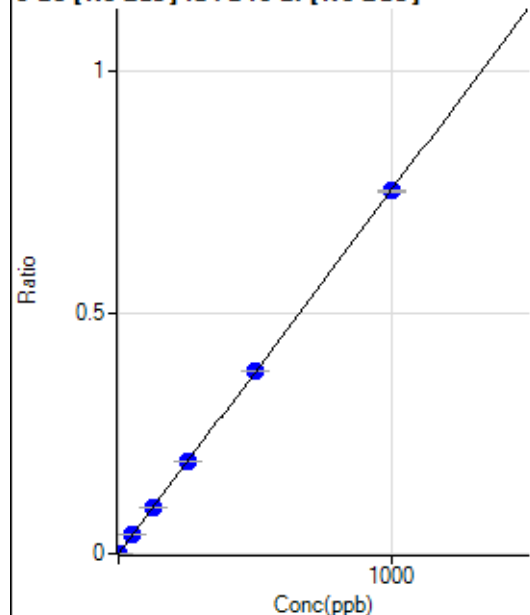


Batch Folder: D:\ICP-MS Data\P7120219MS3.b\
Analysis File: P7120219MS3.batch.bin
DA Date-Time: 2019-12-03 01:24:26
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	003CALB.d	S00	2019-12-02 21:20:15
2	004CALS.d	S02	2019-12-02 21:23:52
3	005CALS.d	S03	2019-12-02 21:28:45
4	006CALS.d	S04	2019-12-02 21:32:59
5	007CALS.d	S05	2019-12-02 21:36:51
6	008CALS.d	S06	2019-12-02 21:40:39
7	009CALS.d	S07	2019-12-02 21:44:25
8	010CALS.d	S08	2019-12-02 21:48:15

9 Be [No Gas] ISTD:6 Li [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	109.26	0.0000	P	41.4
2	☐	1.000	1.005	3563.48	0.0008	P	3.9
3	☐	50.000	51.589	179499.42	0.0389	P	0.9
4	☐	125.000	127.661	439501.13	0.0963	P	0.3
5	☐	250.000	255.047	850549.18	0.1924	P	0.4
6	☐	500.000	500.813	1645174.30	0.3778	P	0.2
7	☐	1000.000	997.920	3217031.81	0.7528	P	0.6
8	☐			603.73	0.0001	P	3.0

$$y = 7.5440\text{E-}004 * x + 2.3563\text{E-}005$$

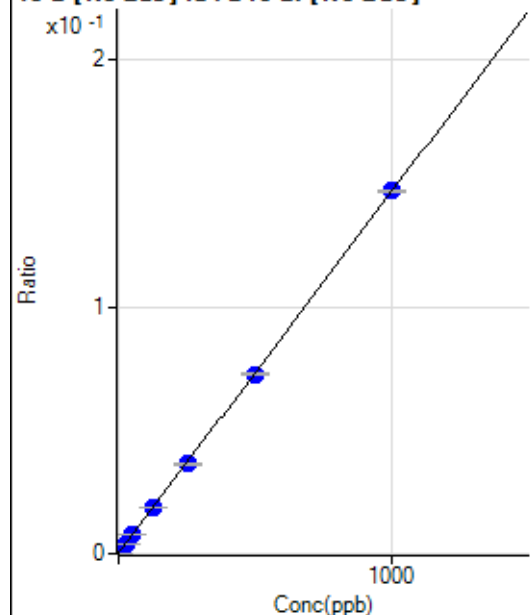
$$R = 1.0000$$

$$DL = 0.03883$$

$$BEC = 0.03123$$

Weight: <None>

Min Conc: 0

10 B [No Gas] ISTD:6 Li [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	986.18	0.0002	P	2.0
2	☐	25.000	24.490	17316.13	0.0038	P	2.8
3	☐	50.000	51.133	35506.48	0.0077	P	1.2
4	☐	125.000	126.729	85661.92	0.0188	P	2.1
5	☐	250.000	247.247	161012.92	0.0364	P	1.9
6	☐	500.000	495.804	317159.54	0.0728	P	1.2
7	☐	1000.000	1002.527	628484.94	0.1471	P	0.7
8	☐			11513.14	0.0027	P	9.6

$$y = 1.4648\text{E-}004 * x + 2.1224\text{E-}004$$

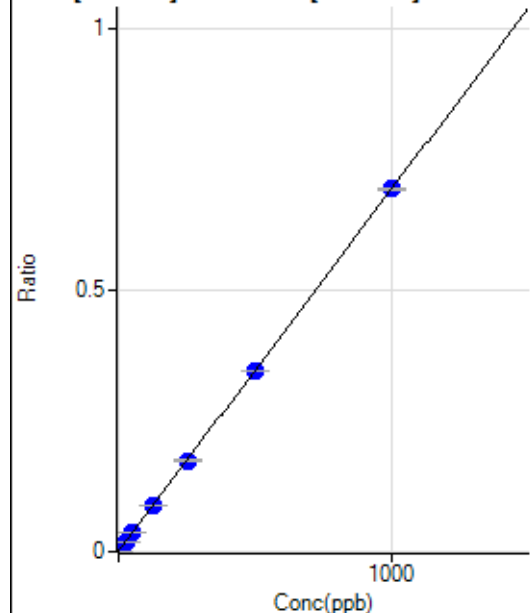
$$R = 1.0000$$

$$DL = 0.08574$$

$$BEC = 1.449$$

Weight: <None>

Min Conc: 0

11 B [No Gas] ISTD:6 Li [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5151.08	0.0011	P	5.8
2	☐	25.000	24.084	80925.66	0.0178	P	1.9
3	☐	50.000	50.238	165203.80	0.0358	P	1.2
4	☐	125.000	125.830	401940.14	0.0881	P	1.5
5	☐	250.000	249.902	768483.25	0.1739	P	1.2
6	☐	500.000	497.851	1503421.18	0.3453	P	0.8
7	☐	1000.000	1001.006	2961887.37	0.6931	P	0.3
8	☐			53487.90	0.0124	P	11.7

$$y = 6.9132E-004 * x + 0.0011$$

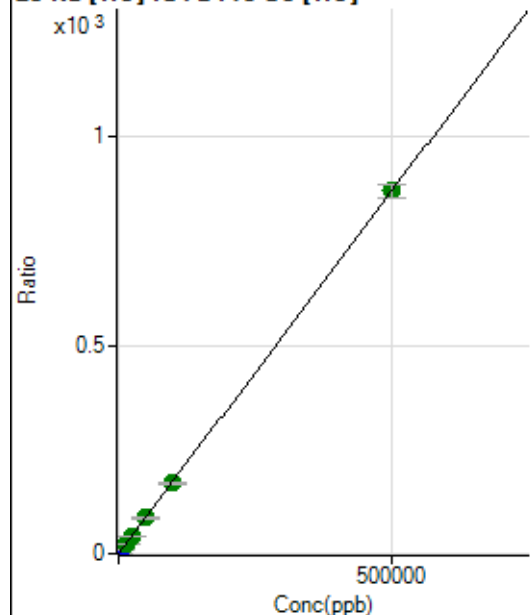
R = 1.0000

DL = 0.2813

BEC = 1.603

Weight: <None>

Min Conc: 0

23 Na [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	17858.59	0.0431	P	2.2
2	☐	500.000	487.139	379700.35	0.8900	P	1.0
3	☐	5000.000	5039.286	3647189.01	8.8039	P	0.4
4	☐	12500.000	12519.952	8990568.08	21.8091	A	0.5
5	☐	25000.000	24582.027	17492337.72	42.7792	A	1.4
6	☐	50000.000	49212.503	35279036.21	85.5995	A	0.6
7	☐	100000.00	96944.259	70008979.34	168.5817	A	0.4
8	☐	500000.00	500709.91	384031041.92	870.5325	A	3.8

$$y = 0.0017 * x + 0.0431$$

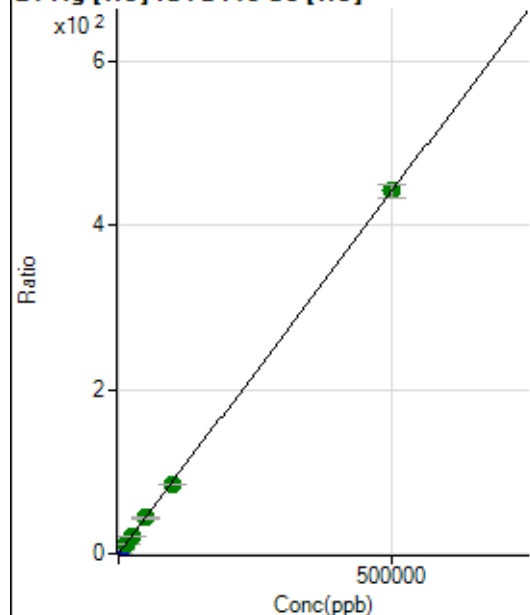
R = 1.0000

DL = 1.613

BEC = 24.78

Weight: <None>

Min Conc: 0

24 Mg [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	813.95	0.0020	P	8.7
2	☐	500.000	523.317	198136.98	0.4644	P	1.1
3	☐	5000.000	5121.144	1875426.36	4.5272	P	1.0
4	☐	12500.000	12619.238	4597368.81	11.1527	A	0.7
5	☐	25000.000	24778.001	8953491.00	21.8966	A	1.1
6	☐	50000.000	49150.825	17900790.85	43.4333	A	0.5
7	☐	100000.00	96351.167	35357488.64	85.1411	A	0.4
8	☐	500000.00	500821.56	195207557.14	442.5448	A	4.1

$$y = 8.8363\text{E-}004 * x + 0.0020$$

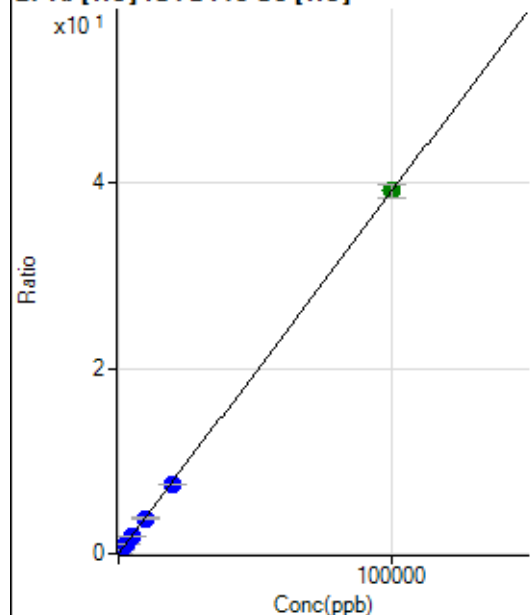
$$R = 1.0000$$

$$DL = 0.5826$$

$$BEC = 2.222$$

Weight: <None>

Min Conc: 0

27 Al [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	488.92	0.0012	P	23.6
2	☐	20.000	19.581	3764.51	0.0088	P	1.6
3	☐	1000.000	1018.987	165281.43	0.3990	P	0.8
4	☐	2500.000	2493.003	401663.89	0.9744	P	0.8
5	☐	5000.000	4924.727	786608.27	1.9237	P	1.0
6	☐	10000.000	9818.071	1580171.36	3.8340	P	0.9
7	☐	20000.000	19197.450	3112739.20	7.4955	P	0.5
8	☐	100000.00	100182.45	17253899.69	39.1107	A	3.7

$$y = 3.9038\text{E-}004 * x + 0.0012$$

$$R = 1.0000$$

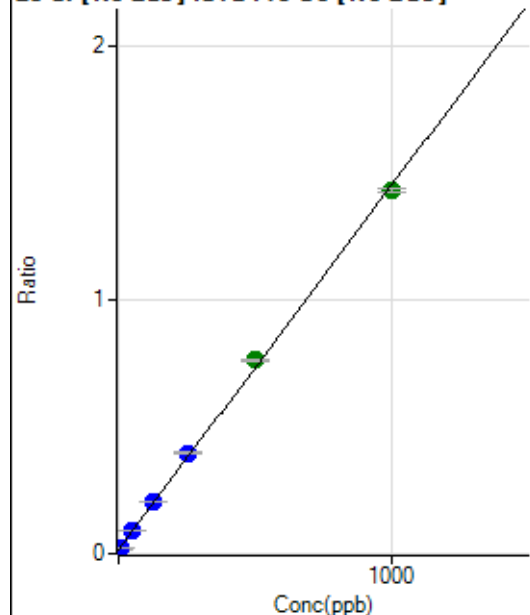
$$DL = 2.137$$

$$BEC = 3.021$$

Weight: <None>

Min Conc: 0

28 Si [No Gas] ISTD :45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	171287.46	0.0160	P	0.9
2	☐	10.000	7.013	280215.14	0.0260	P	0.4
3	☐	50.000	53.057	992570.02	0.0921	P	1.3
4	☐	125.000	132.402	2209207.99	0.2058	P	1.1
5	☐	250.000	265.866	4154033.17	0.3972	P	0.9
6	☐	500.000	519.710	7994042.11	0.7612	A	1.2
7	☐	1000.000	985.130	14812982.27	1.4286	A	1.1
8	☐			903751.63	0.0862	P	0.6

$$y = 0.0014 * x + 0.0160$$

$$R = 0.9995$$

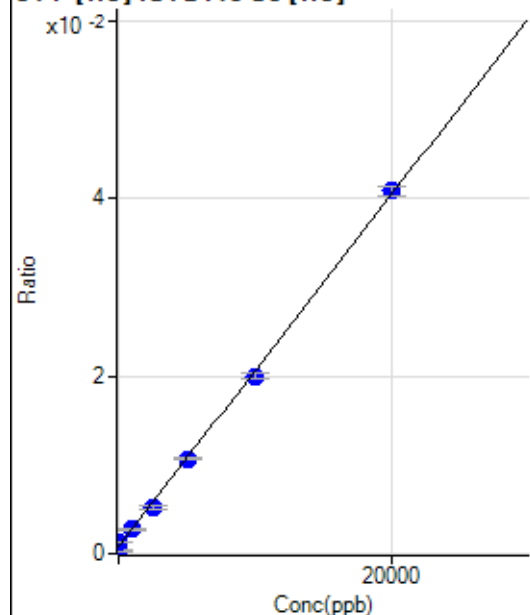
$$DL = 0.2928$$

$$BEC = 11.15$$

Weight: <None>

Min Conc: 0

31 P [He] ISTD :45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-262.763	122.23	0.0003	P	35.0
2	☐	0.000	262.763	569.48	0.0013	P	6.7
3	☐	1000.000	954.393	1119.54	0.0027	P	8.2
4	☐	2500.000	2225.592	2153.02	0.0052	P	8.0
5	☐	5000.000	4978.306	4361.93	0.0107	P	2.7
6	☐	10000.000	9668.843	8222.04	0.0199	P	3.0
7	☐	20000.000	20207.584	16943.58	0.0408	P	2.9
8	☐			200.01	0.0005	P	8.0

$$y = 1.9788E-006 * x + 8.1484E-004$$

$$R = 0.9995$$

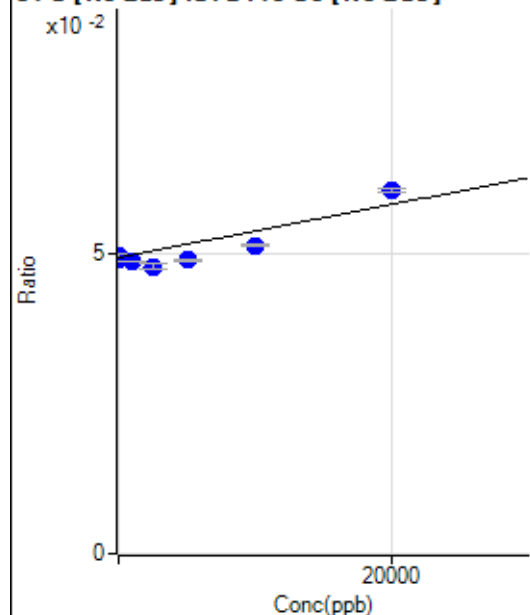
$$DL = 145.6$$

$$BEC = 411.8$$

Weight: <None>

Min Conc: 0

34 S [No Gas] ISTD:45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-839.928	524235.74	0.0489	P	1.0
2	☐	0.000	839.928	534488.96	0.0497	P	0.9
3	☐	1000.000	-1359.745	525141.85	0.0487	P	0.4
4	☐	2500.000	-3310.658	513487.13	0.0478	P	1.5
5	☐	5000.000	-973.203	511188.08	0.0489	P	0.3
6	☐	10000.000	4570.458	539057.64	0.0513	P	0.4
7	☐	20000.000	25052.391	626136.48	0.0604	P	1.2
8	☐			488873.98	0.0466	P	0.8

$$y = 4.4209\text{E-}007 * x + 0.0493$$

$$R = 0.9274$$

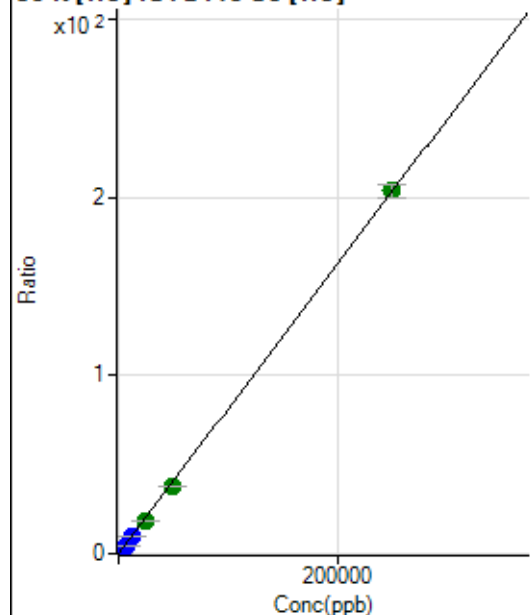
$$DL = 3274$$

$$BEC = 1.115\text{E}+05$$

Weight: <None>

Min Conc: 0

39 K [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	21246.51	0.0512	P	0.4
2	☐	500.000	480.268	188217.64	0.4411	P	0.4
3	☐	2500.000	2381.826	822274.36	1.9849	P	1.4
4	☐	6250.000	5901.282	1996016.34	4.8421	P	0.6
5	☐	12500.000	11643.925	3886358.29	9.5042	P	0.9
6	☐	25000.000	23135.097	7762006.33	18.8331	A	0.6
7	☐	50000.000	46104.276	15564594.44	37.4802	A	0.8
8	☐	250000.00	251018.37	89921254.09	203.8363	A	3.8

$$y = 8.1183\text{E-}004 * x + 0.0512$$

$$R = 0.9999$$

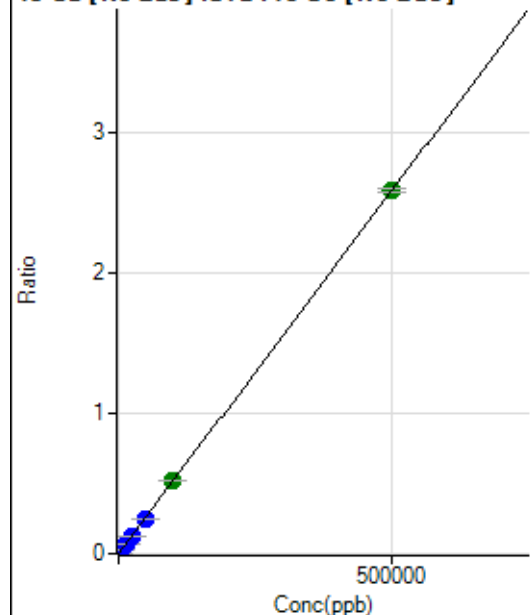
$$DL = 0.8343$$

$$BEC = 63.13$$

Weight: <None>

Min Conc: 0

43 Ca [No Gas] ISTD:45 Sc [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	647.26	0.0001	P	8.2
2	☐	500.000	492.892	28046.91	0.0026	P	2.2
3	☐	5000.000	5056.776	282344.87	0.0262	P	1.1
4	☐	12500.000	12512.400	694476.93	0.0647	P	1.2
5	☐	25000.000	24765.042	1338789.56	0.1280	P	0.3
6	☐	50000.000	48778.133	2647360.52	0.2521	P	0.3
7	☐	100000.00	99878.353	5351666.35	0.5161	A	0.7
8	☐	500000.00	500157.39	27080194.53	2.5843	A	0.9

$$y = 5.1668\text{E-}006 * x + 6.0376\text{E-}005$$

$$R = 1.0000$$

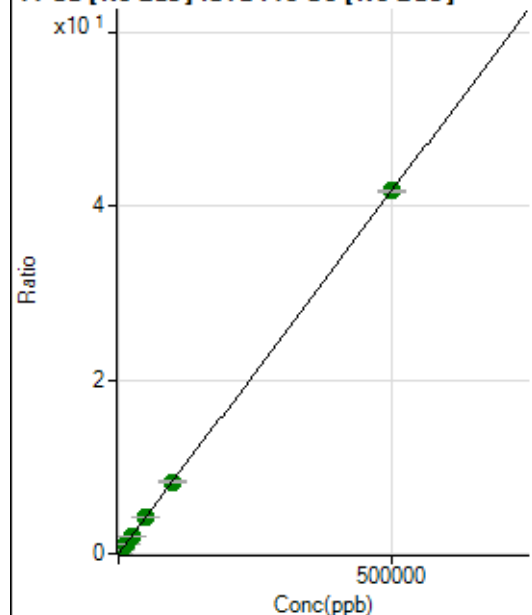
$$DL = 2.871$$

$$BEC = 11.69$$

Weight: <None>

Min Conc: 0

44 Ca [No Gas] ISTD:45 Sc [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	15664.41	0.0015	P	1.4
2	☐	500.000	493.047	458932.60	0.0427	P	0.2
3	☐	5000.000	4981.173	4502884.91	0.4176	A	0.1
4	☐	12500.000	12472.803	11200281.59	1.0436	A	0.3
5	☐	25000.000	24672.138	21573722.18	2.0629	A	0.4
6	☐	50000.000	49091.854	43090764.50	4.1032	A	0.1
7	☐	100000.00	99397.372	86128942.21	8.3063	A	0.8
8	☐	500000.00	500228.60	437984515.35	41.7965	A	0.5

$$y = 8.3552\text{E-}005 * x + 0.0015$$

$$R = 1.0000$$

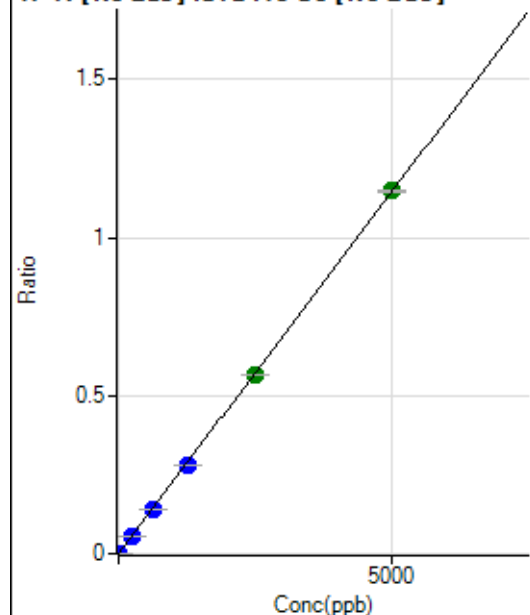
$$DL = 0.7252$$

$$BEC = 17.5$$

Weight: <None>

Min Conc: 0

47 Ti [No Gas] ISTD:45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	105.56	0.0000	P	13.2
2	☐	5.000	5.140	12750.42	0.0012	P	1.2
3	☐	250.000	249.694	615581.93	0.0571	P	0.8
4	☐	625.000	620.308	1522138.64	0.1418	P	1.5
5	☐	1250.000	1232.027	2945939.22	0.2817	P	0.7
6	☐	2500.000	2474.929	5942512.85	0.5659	A	0.5
7	☐	5000.000	5017.631	11895558.17	1.1472	A	0.7
8	☐			3394.98	0.0003	P	5.9

$$y = 2.2863\text{E-}004 * x + 9.8645\text{E-}006$$

$$R = 1.0000$$

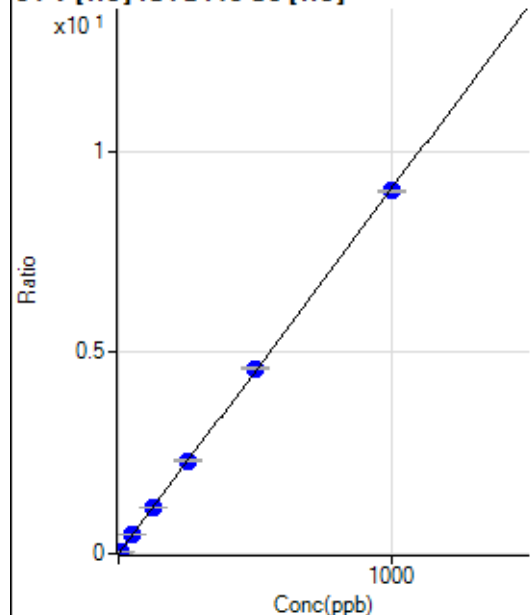
$$DL = 0.01715$$

$$BEC = 0.04315$$

Weight: <None>

Min Conc: 0

51 V [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	18.89	0.0000	P	83.3
2	☐	5.000	5.418	20969.55	0.0491	P	0.8
3	☐	50.000	51.599	193739.55	0.4677	P	1.0
4	☐	125.000	128.406	479700.82	1.1637	P	1.0
5	☐	250.000	254.503	943134.85	2.3065	P	1.1
6	☐	500.000	507.769	1896610.39	4.6018	P	0.7
7	☐	1000.000	994.482	3742698.70	9.0127	P	0.9
8	☐			1833.48	0.0042	P	4.6

$$y = 0.0091 * x + 4.5551\text{E-}005$$

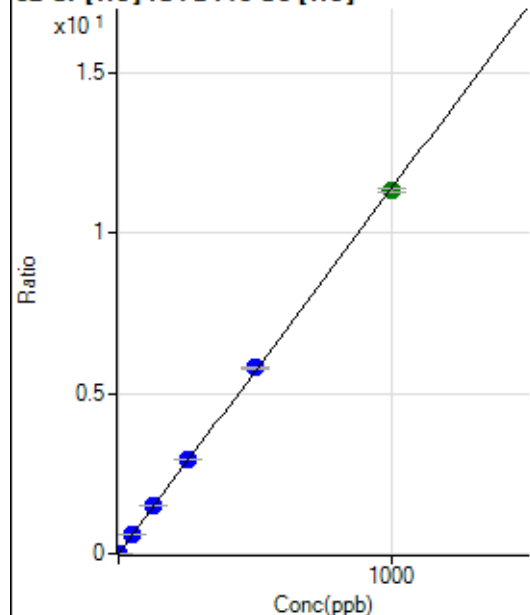
$$R = 0.9999$$

$$DL = 0.01256$$

$$BEC = 0.005026$$

Weight: <None>

Min Conc: 0

52 Cr [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1703.46	0.0041	P	2.2
2	☐	2.000	2.078	11858.23	0.0278	P	0.8
3	☐	50.000	52.591	250080.68	0.6037	P	0.8
4	☐	125.000	129.978	612533.01	1.4859	P	0.5
5	☐	250.000	256.610	1197915.59	2.9296	P	0.9
6	☐	500.000	508.285	2389932.87	5.7987	P	0.6
7	☐	1000.000	993.453	4704949.83	11.3298	A	0.9
8	☐			141143.41	0.3200	P	4.1

$$y = 0.0114 * x + 0.0041$$

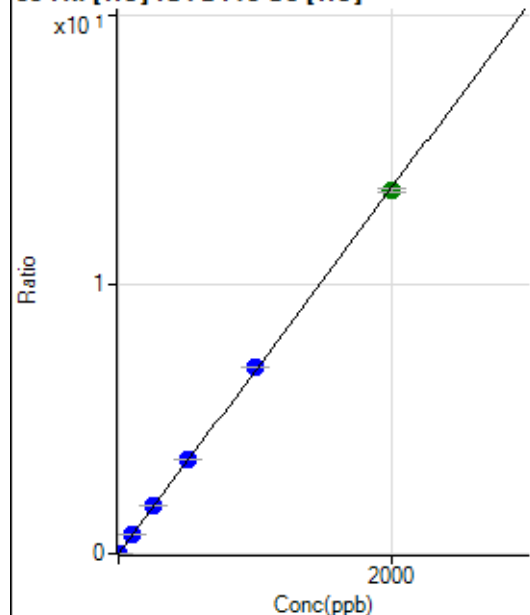
$$R = 0.9999$$

$$DL = 0.02413$$

$$BEC = 0.3604$$

Weight: <None>

Min Conc: 0

55 Mn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	82.22	0.0002	P	6.4
2	☐	1.000	1.073	3193.74	0.0075	P	5.0
3	☐	100.000	105.766	297623.76	0.7184	P	0.5
4	☐	250.000	261.930	733308.10	1.7789	P	0.7
5	☐	500.000	515.187	1430650.15	3.4987	P	0.7
6	☐	1000.000	1020.982	2857646.41	6.9335	P	0.5
7	☐	2000.000	1983.932	5594783.39	13.4727	A	1.0
8	☐			22419.52	0.0508	P	2.7

$$y = 0.0068 * x + 1.9835E-004$$

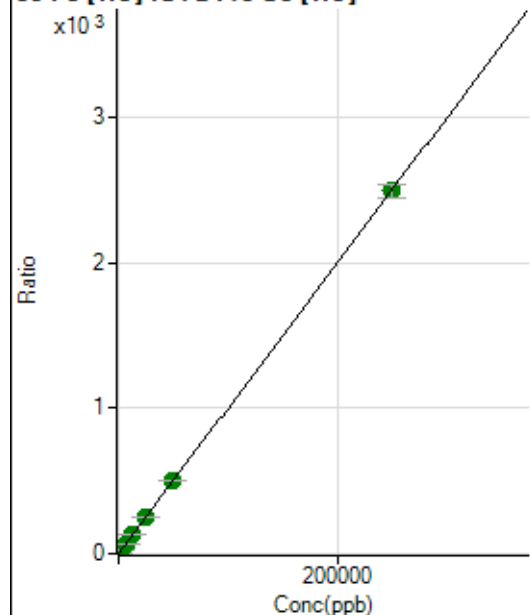
$$R = 0.9999$$

$$DL = 0.005622$$

$$BEC = 0.02921$$

Weight: <None>

Min Conc: 0

56 Fe [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	8823.22	0.0213	P	2.8
2	☐	50.000	54.949	243012.69	0.5696	P	1.6
3	☐	2500.000	2641.168	10926091.56	26.3746	A	0.7
4	☐	6250.000	6584.261	27091211.95	65.7183	A	0.5
5	☐	12500.000	12960.483	52886832.66	129.3396	A	1.3
6	☐	25000.000	25597.091	105271325.50	255.4263	A	0.5
7	☐	50000.000	50046.004	207374956.49	499.3749	A	0.9
8	☐	250000.00	249898.29	1099898846.8	2,493.479	A	4.0

$$y = 0.0100 * x + 0.0213$$

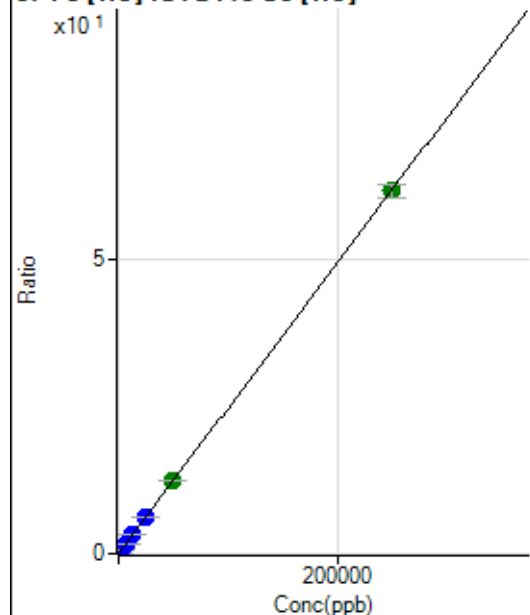
$$R = 1.0000$$

$$DL = 0.1766$$

$$BEC = 2.133$$

Weight: <None>

Min Conc: 0

57 Fe [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	225.93	0.0005	P	8.1
2	☐	50.000	56.674	6188.53	0.0145	P	2.2
3	☐	2500.000	2675.422	273249.23	0.6596	P	1.3
4	☐	6250.000	6621.643	672607.48	1.6317	P	0.9
5	☐	12500.000	13064.559	1316170.47	3.2189	P	1.3
6	☐	25000.000	25692.510	2608759.52	6.3296	P	0.4
7	☐	50000.000	50114.860	5126700.64	12.3458	A	1.5
8	☐	250000.00	249868.50	27153944.36	61.5532	A	3.8

$$y = 2.4634E-004 * x + 5.4501E-004$$

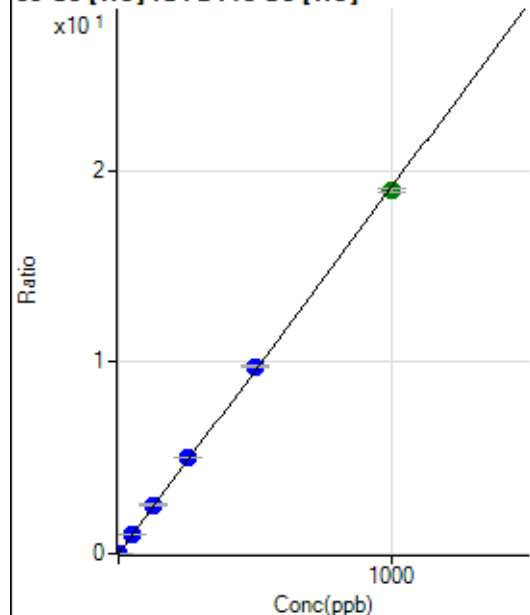
$$R = 1.0000$$

$$DL = 0.5344$$

$$BEC = 2.212$$

Weight: <None>

Min Conc: 0

59 Co [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	88.89	0.0002	P	14.0
2	☐	1.000	1.059	8747.18	0.0205	P	2.5
3	☐	50.000	54.107	429290.78	1.0363	P	0.5
4	☐	125.000	133.513	1053922.54	2.5568	P	0.9
5	☐	250.000	262.533	2055694.22	5.0273	P	0.7
6	☐	500.000	511.389	4035986.50	9.7925	P	0.7
7	☐	1000.000	989.902	7871436.90	18.9552	A	1.1
8	☐			16492.79	0.0374	P	4.5

$$y = 0.0191 * x + 2.1438E-004$$

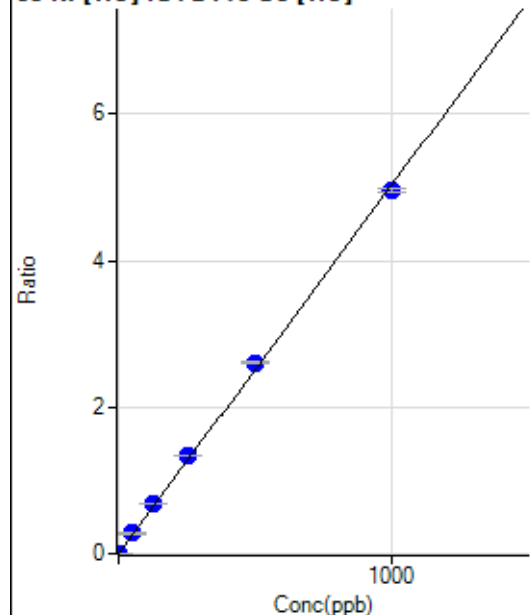
$$R = 0.9998$$

$$DL = 0.004704$$

$$BEC = 0.0112$$

Weight: <None>

Min Conc: 0

60 Ni [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	45.55	0.0001	P	44.7
2	☐	1.000	1.116	2439.13	0.0057	P	7.0
3	☐	50.000	54.997	114520.34	0.2764	P	0.8
4	☐	125.000	135.948	281632.22	0.6832	P	0.5
5	☐	250.000	265.684	545914.93	1.3351	P	0.6
6	☐	500.000	519.171	1075178.95	2.6087	P	0.4
7	☐	1000.000	984.875	2055040.68	4.9487	P	0.9
8	☐			43066.54	0.0976	P	4.0

$$y = 0.0050 * x + 1.0990E-004$$

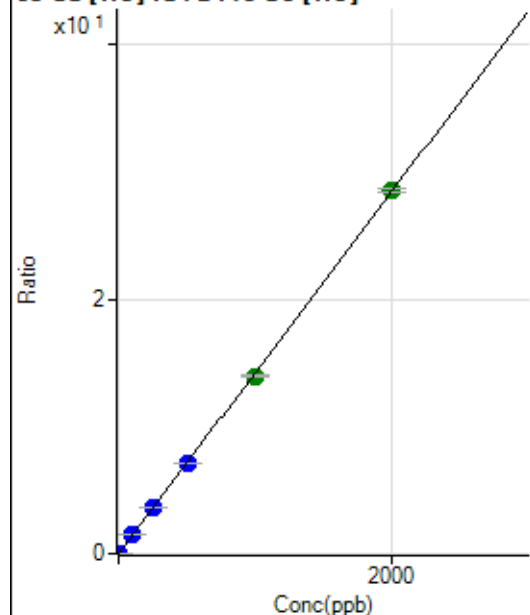
$$R = 0.9996$$

$$DL = 0.02934$$

$$BEC = 0.02187$$

Weight: <None>

Min Conc: 0

63 Cu [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	878.93	0.0021	P	12.2
2	☐	2.000	2.109	13677.66	0.0321	P	1.4
3	☐	100.000	105.992	624287.95	1.5070	P	0.6
4	☐	250.000	258.993	1516630.64	3.6793	P	0.9
5	☐	500.000	503.308	2922896.76	7.1480	P	0.5
6	☐	1000.000	982.613	5750683.45	13.9531	A	0.5
7	☐	2000.000	2006.443	11830741.35	28.4893	A	0.9
8	☐			20438.91	0.0463	P	3.6

$$y = 0.0142 * x + 0.0021$$

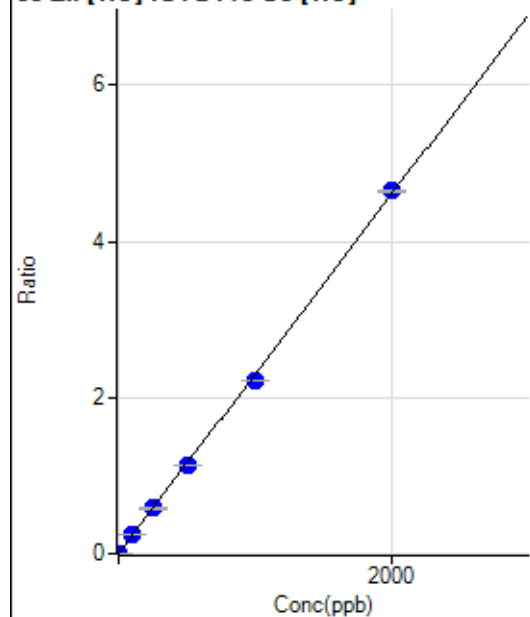
$$R = 0.9999$$

$$DL = 0.05475$$

$$BEC = 0.1494$$

Weight: <None>

Min Conc: 0

66 Zn [He] ISTD:45 Sc [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	642.25	0.0015	P	4.8
2	☐	2.000	2.144	2763.64	0.0065	P	2.1
3	☐	100.000	102.503	98237.39	0.2371	P	0.5
4	☐	250.000	252.564	239898.53	0.5820	P	1.5
5	☐	500.000	494.914	465748.62	1.1390	P	0.6
6	☐	1000.000	961.389	911306.04	2.2111	P	0.5
7	☐	2000.000	2020.131	1928688.36	4.6444	P	0.8
8	☐			24587.55	0.0557	P	3.0

$$y = 0.0023 * x + 0.0015$$

$$R = 0.9997$$

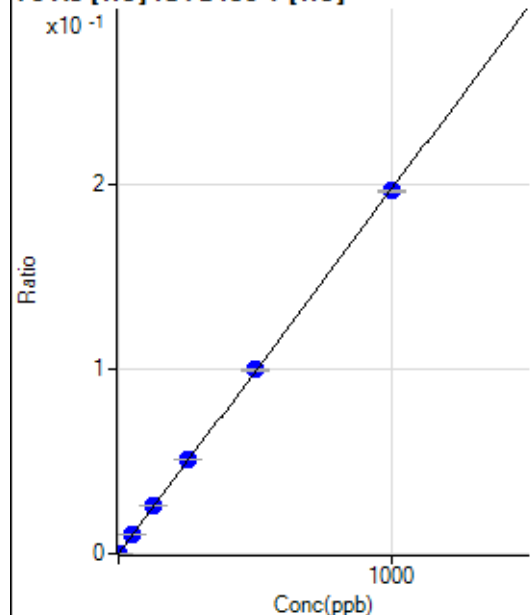
$$DL = 0.09673$$

$$BEC = 0.674$$

Weight: <None>

Min Conc: 0

75 As [He] ISTD:89 Y [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	16.67	0.0000	P	29.6
2	☐	1.000	1.092	593.85	0.0002	P	8.6
3	☐	50.000	52.372	27122.26	0.0103	P	0.7
4	☐	125.000	130.023	67210.45	0.0257	P	1.0
5	☐	250.000	256.493	131542.87	0.0506	P	0.3
6	☐	500.000	504.228	261021.79	0.0995	P	0.6
7	☐	1000.000	995.516	508015.62	0.1965	P	0.6
8	☐			259.26	0.0001	P	7.1

$$y = 1.9742\text{E-}004 * x + 6.4275\text{E-}006$$

$$R = 1.0000$$

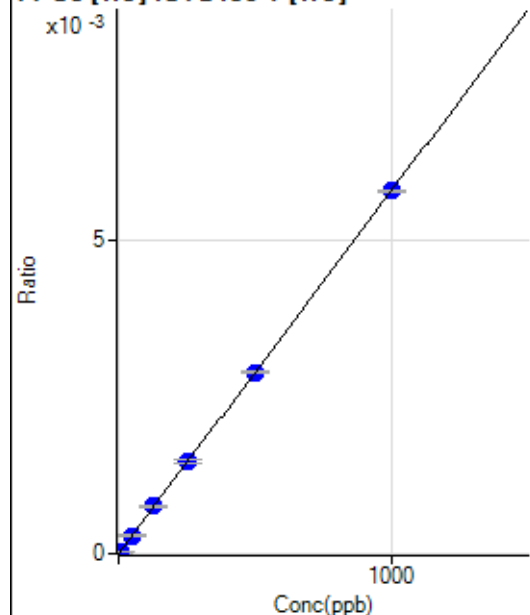
$$DL = 0.02893$$

$$BEC = 0.03256$$

Weight: <None>

Min Conc: 0

77 Se [He] ISTD:89 Y [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1.11	0.0000	P	173.2
2	☐	5.000	6.675	104.45	0.0000	P	25.0
3	☐	50.000	49.638	753.37	0.0003	P	11.1
4	☐	125.000	129.857	1966.83	0.0008	P	5.2
5	☐	250.000	253.337	3806.13	0.0015	P	3.0
6	☐	500.000	498.171	7553.20	0.0029	P	1.1
7	☐	1000.000	999.483	14937.86	0.0058	P	0.8
8	☐			8.89	0.0000	P	75.4

$$y = 5.7816\text{E-}006 * x + 4.2603\text{E-}007$$

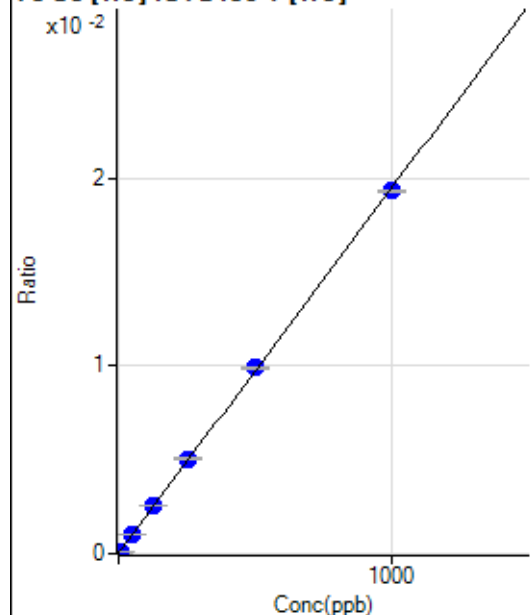
$$R = 1.0000$$

$$DL = 0.3829$$

$$BEC = 0.07369$$

Weight: <None>

Min Conc: 0

78 Se [He] ISTD:89 Y [He]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	66.05	0.0000	P	14.1
2	☐	5.000	5.250	340.75	0.0001	P	9.2
3	☐	50.000	51.329	2681.75	0.0010	P	2.5
4	☐	125.000	128.992	6628.73	0.0025	P	0.3
5	☐	250.000	258.683	13125.14	0.0051	P	1.3
6	☐	500.000	508.794	25993.06	0.0099	P	0.9
7	☐	1000.000	992.866	49941.13	0.0193	P	0.5
8	☐			106.79	0.0000	P	13.9

$$y = 1.9434\text{E-}005 * x + 2.5464\text{E-}005$$

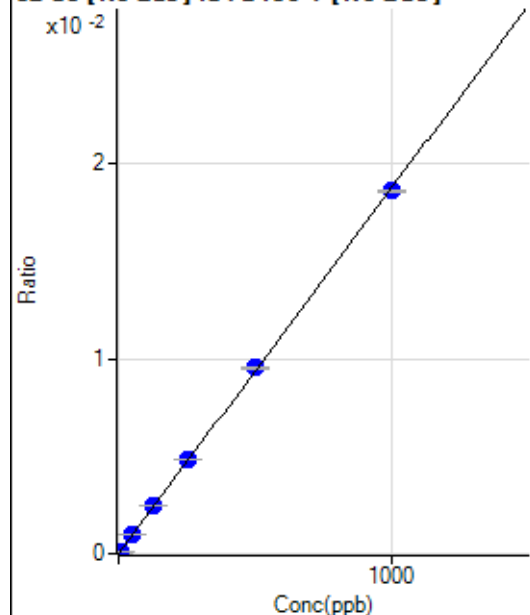
$$R = 0.9999$$

$$DL = 0.5556$$

$$BEC = 1.31$$

Weight: <None>

Min Conc: 0

82 Se [No Gas] ISTD:89 Y [No Gas]

	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	-36.48	0.0000	P	-153.
2	☐	5.000	5.702	2205.70	0.0001	P	2.7
3	☐	50.000	52.863	21174.35	0.0010	P	0.0
4	☐	125.000	131.368	52136.05	0.0025	P	1.3
5	☐	250.000	259.196	101387.50	0.0049	P	0.4
6	☐	500.000	508.307	198241.64	0.0095	P	0.9
7	☐	1000.000	992.605	383981.44	0.0186	P	0.5
8	☐			326.03	0.0000	P	13.0

$$y = 1.8731\text{E-}005 * x - 1.7223\text{E-}006$$

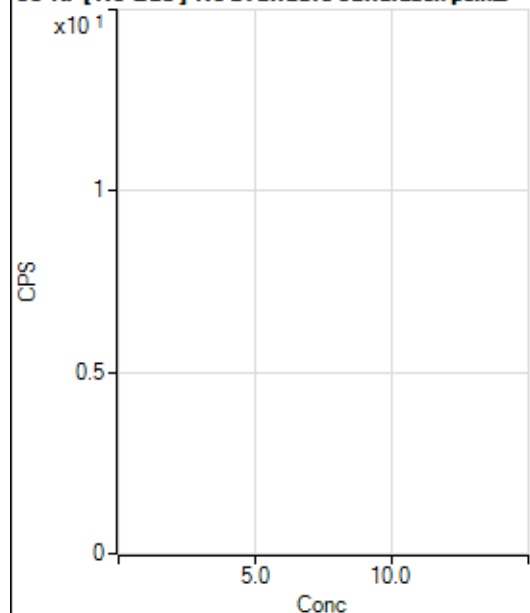
$$R = 0.9999$$

$$DL = 0.4221$$

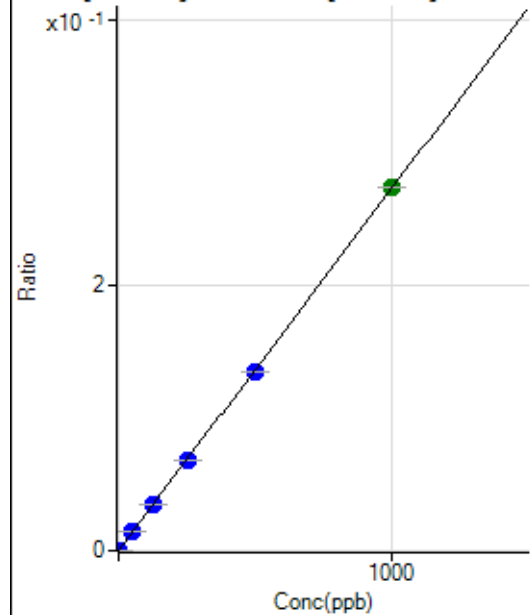
$$BEC = -0.09195$$

Weight: <None>

Min Conc: 0

83 Kr [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1197.85		P	5.5
2	☐			1211.18		P	1.7
3	☐			1192.29		P	3.3
4	☐			1205.63		P	12.2
5	☐			1153.40		P	5.1
6	☐			1084.50		P	2.9
7	☐			1172.29		P	4.5
8	☐			1182.29		P	2.2

86 Sr [No Gas] ISTD : 89 Y [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	2222.49	0.0001	P	5.9
2	☐	1.000	1.003	7966.43	0.0004	P	3.0
3	☐	50.000	50.878	299145.12	0.0140	P	0.3
4	☐	125.000	127.480	738487.74	0.0348	P	0.2
5	☐	250.000	251.161	1431378.99	0.0685	P	0.5
6	☐	500.000	494.205	2805528.42	0.1347	P	0.3
7	☐	1000.000	1002.253	5640932.98	0.2731	A	0.1
8	☐			25195.18	0.0012	P	1.2

$$y = 2.7238E-004 * x + 1.0627E-004$$

$$R = 1.0000$$

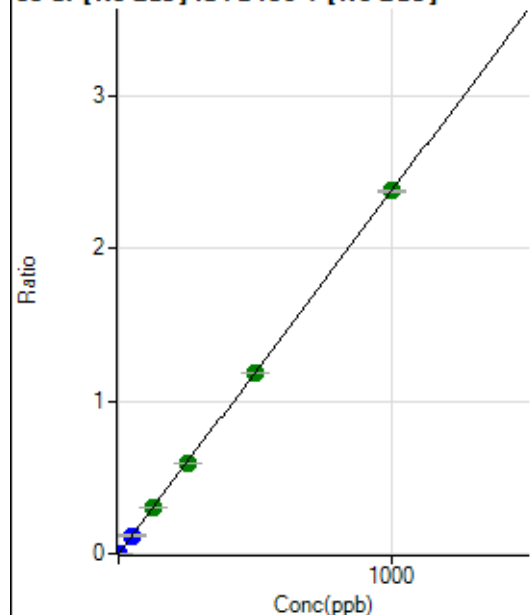
$$DL = 0.06896$$

$$BEC = 0.3901$$

Weight: <None>

Min Conc: 0

88 Sr [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1944.66	0.0001	P	6.0
2	☐	1.000	1.044	54033.19	0.0026	P	0.2
3	☐	50.000	50.325	2563174.67	0.1197	P	0.6
4	☐	125.000	125.784	6338056.65	0.2989	A	0.2
5	☐	250.000	249.510	12385397.76	0.5929	A	0.3
6	☐	500.000	499.551	24716598.47	1.1869	A	0.3
7	☐	1000.000	1000.233	49084507.69	2.3764	A	0.4
8	☐			207332.02	0.0103	P	0.7

$$y = 0.0024 * x + 9.2839E-005$$

$$R = 1.0000$$

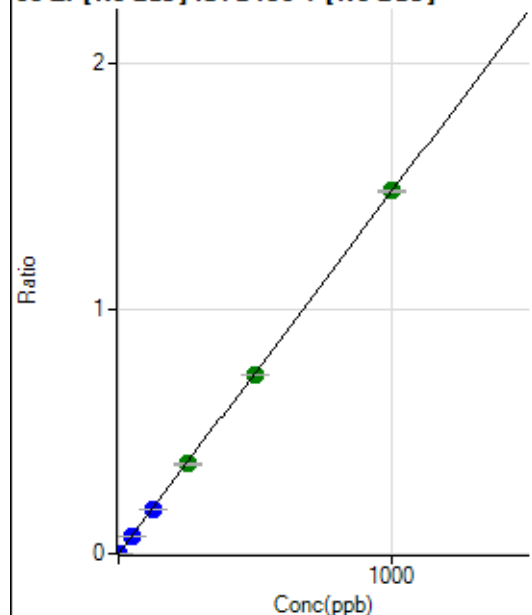
$$DL = 0.007007$$

$$BEC = 0.03908$$

Weight: <None>

Min Conc: 0

90 Zr [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1272.34	0.0001	P	4.2
2	☐	1.000	0.889	28846.62	0.0014	P	1.6
3	☐	50.000	49.491	1567777.79	0.0732	P	0.6
4	☐	125.000	124.043	3887350.26	0.1833	P	0.8
5	☐	250.000	247.476	7640224.13	0.3657	A	0.5
6	☐	500.000	495.715	15254203.81	0.7325	A	0.1
7	☐	1000.000	1002.918	30608897.21	1.4819	A	0.4
8	☐			10003.90	0.0005	P	1.9

$$y = 0.0015 * x + 6.0810E-005$$

$$R = 1.0000$$

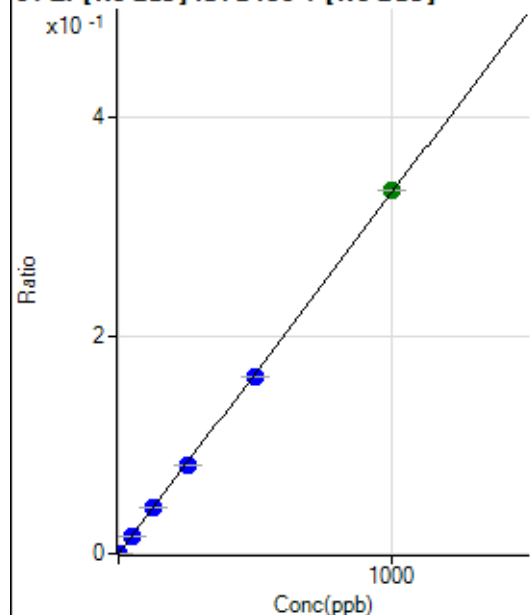
$$DL = 0.005178$$

$$BEC = 0.04116$$

Weight: <None>

Min Conc: 0

91 Zr [No Gas] ISTD: 89 Y [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	213.90	0.0000	P	29.2
2	☐	1.000	0.893	6415.60	0.0003	P	4.0
3	☐	50.000	49.577	351385.13	0.0164	P	0.4
4	☐	125.000	125.570	880579.00	0.0415	P	0.2
5	☐	250.000	246.660	1704072.43	0.0816	P	0.6
6	☐	500.000	489.765	3372679.07	0.1620	P	0.2
7	☐	1000.000	1005.902	6870277.93	0.3326	A	0.0
8	☐			2086.34	0.0001	P	3.1

$$y = 3.3066\text{E-}004 * x + 1.0238\text{E-}005$$

$$R = 0.9999$$

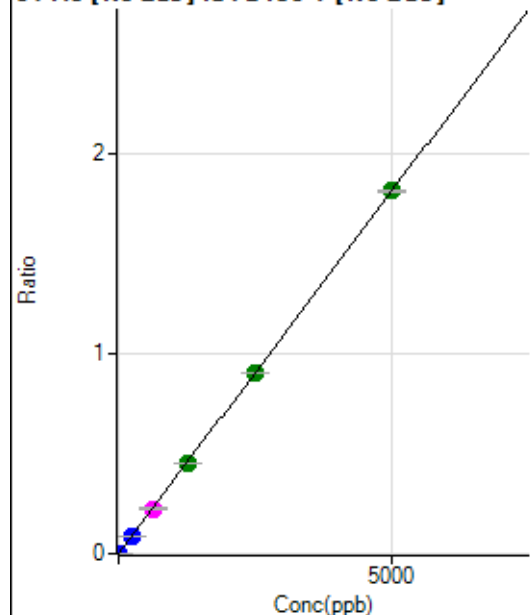
$$DL = 0.02711$$

$$BEC = 0.03096$$

Weight: <None>

Min Conc: 0

94 Mo [No Gas] ISTD: 89 Y [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	705.60	0.0000	P	1.9
2	☐	5.000	4.950	38399.84	0.0018	P	1.0
3	☐	250.000	248.044	1928276.67	0.0900	P	0.2
4	☐	625.000	622.217	4786572.16	0.2258	M	0.7
5	☐	1250.000	1240.240	9399785.02	0.4500	A	0.1
6	☐	2500.000	2490.318	18813430.45	0.9034	A	0.6
7	☐	5000.000	5007.727	37523396.33	1.8167	A	0.4
8	☐			30015.70	0.0015	P	1.0

$$y = 3.6277\text{E-}004 * x + 3.3720\text{E-}005$$

$$R = 1.0000$$

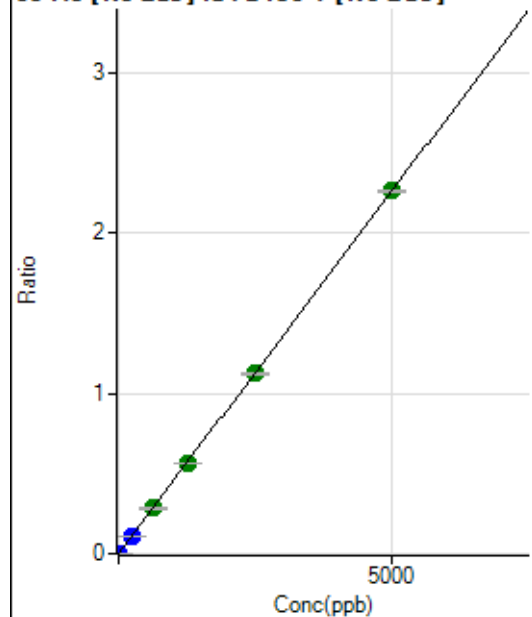
$$DL = 0.005176$$

$$BEC = 0.09295$$

Weight: <None>

Min Conc: 0

95 Mo [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	447.25	0.0000	P	5.1
2	☐	5.000	5.089	48658.84	0.0023	P	0.7
3	☐	250.000	249.135	2409331.24	0.1125	P	0.3
4	☐	625.000	625.591	5987495.75	0.2824	A	0.6
5	☐	1250.000	1244.603	11736254.95	0.5618	A	0.5
6	☐	2500.000	2486.157	23369070.66	1.1222	A	0.4
7	☐	5000.000	5008.240	46692335.07	2.2606	A	0.3
8	☐			48455.49	0.0024	P	1.8

$$y = 4.5137\text{E-}004 * x + 2.1364\text{E-}005$$

$$R = 1.0000$$

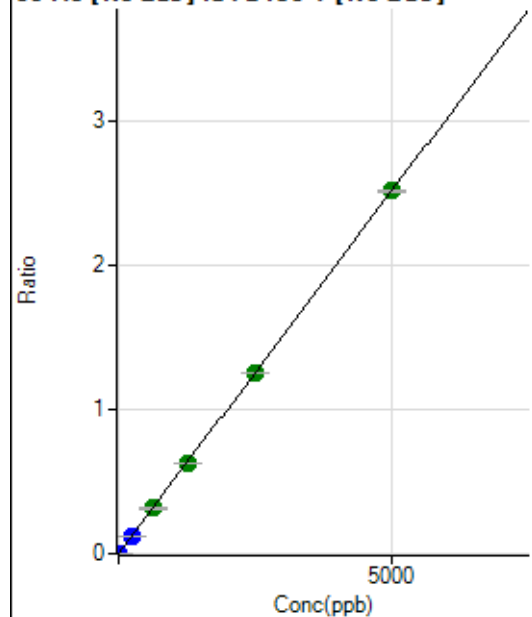
$$DL = 0.007238$$

$$BEC = 0.04733$$

Weight: <None>

Min Conc: 0

96 Mo [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	605.59	0.0000	P	8.5
2	☐	5.000	5.075	54184.15	0.0026	P	2.3
3	☐	250.000	249.205	2685366.97	0.1254	P	0.2
4	☐	625.000	624.641	6661318.11	0.3142	A	0.5
5	☐	1250.000	1245.613	13087233.02	0.6265	A	0.5
6	☐	2500.000	2493.360	26113859.61	1.2540	A	0.1
7	☐	5000.000	5004.501	51985275.82	2.5169	A	0.3
8	☐			59692.39	0.0030	P	1.3

$$y = 5.0292\text{E-}004 * x + 2.8937\text{E-}005$$

$$R = 1.0000$$

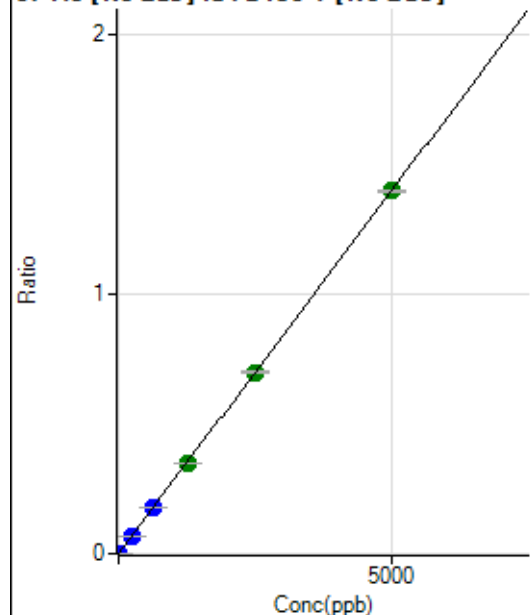
$$DL = 0.01463$$

$$BEC = 0.05754$$

Weight: <None>

Min Conc: 0

97 Mo [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	316.68	0.0000	P	15.8
2	☐	5.000	5.132	30469.55	0.0015	P	0.9
3	☐	250.000	251.261	1506860.25	0.0703	P	0.2
4	☐	625.000	626.874	3720607.42	0.1755	P	0.4
5	☐	1250.000	1244.303	7276091.57	0.3483	A	0.4
6	☐	2500.000	2503.172	14590875.50	0.7007	A	0.2
7	☐	5000.000	4999.541	28904720.78	1.3994	A	0.4
8	☐			28484.68	0.0014	P	0.9

$$y = 2.7990\text{E-}004 * x + 1.5163\text{E-}005$$

$$R = 1.0000$$

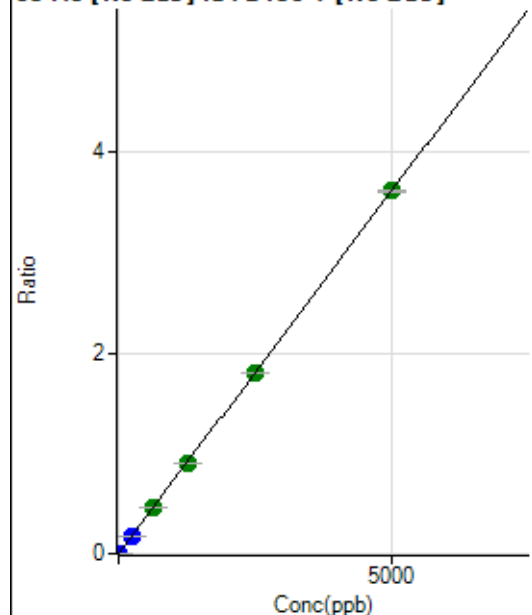
$$DL = 0.02565$$

$$BEC = 0.05417$$

Weight: <None>

Min Conc: 0

98 Mo [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	727.83	0.0000	P	13.6
2	☐	5.000	5.076	77806.93	0.0037	P	1.7
3	☐	250.000	248.902	3857985.94	0.1801	P	0.4
4	☐	625.000	627.066	9619078.69	0.4537	A	0.8
5	☐	1250.000	1241.556	18764235.14	0.8982	A	0.3
6	☐	2500.000	2499.831	37661612.99	1.8085	A	0.1
7	☐	5000.000	5001.992	74744855.84	3.6187	A	0.4
8	☐			73093.24	0.0036	P	1.0

$$y = 7.2344\text{E-}004 * x + 3.4709\text{E-}005$$

$$R = 1.0000$$

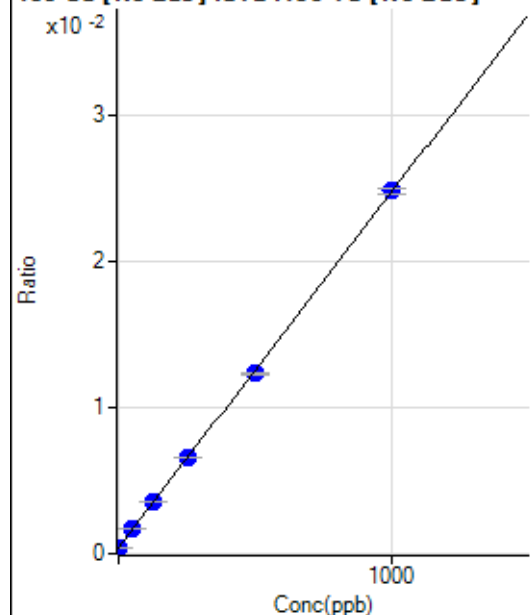
$$DL = 0.0196$$

$$BEC = 0.04798$$

Weight: <None>

Min Conc: 0

106 Cd [No Gas] ISTD :159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	10170.66	0.0004	P	3.2
2	☐	1.000	1.569	11026.94	0.0005	P	3.1
3	☐	50.000	52.132	41949.20	0.0017	P	2.3
4	☐	125.000	129.387	88959.11	0.0036	P	0.9
5	☐	250.000	252.370	163126.42	0.0066	P	1.1
6	☐	500.000	490.241	306208.36	0.0124	P	1.2
7	☐	1000.000	1003.632	604744.06	0.0249	P	1.3
8	☐			10621.10	0.0005	P	3.5

$$y = 2.4364\text{E-}005 * x + 4.1587\text{E-}004$$

$$R = 0.9999$$

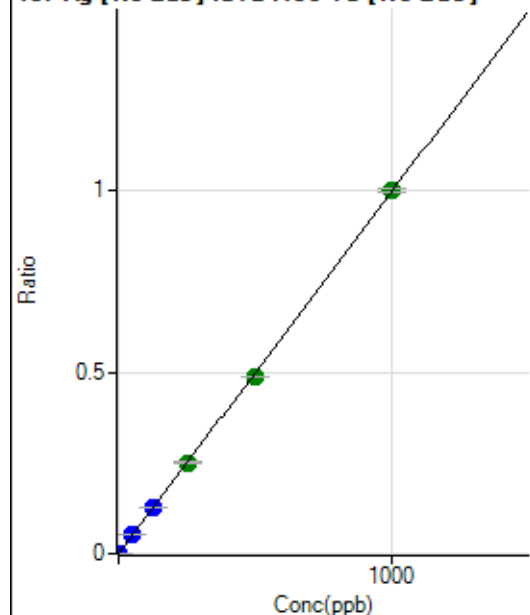
$$DL = 1.646$$

$$BEC = 17.07$$

Weight: <None>

Min Conc: 0

107 Ag [No Gas] ISTD :159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	294.46	0.0000	P	15.5
2	☐	1.000	0.831	20368.03	0.0008	P	5.4
3	☐	50.000	52.699	1305721.48	0.0525	P	2.1
4	☐	125.000	128.801	3197290.63	0.1282	P	0.4
5	☐	250.000	252.226	6240431.26	0.2511	A	0.6
6	☐	500.000	491.111	12113753.22	0.4890	A	0.2
7	☐	1000.000	1003.278	24288235.61	0.9989	A	1.1
8	☐			4289.72	0.0002	P	0.7

$$y = 9.9559\text{E-}004 * x + 1.2014\text{E-}005$$

$$R = 0.9999$$

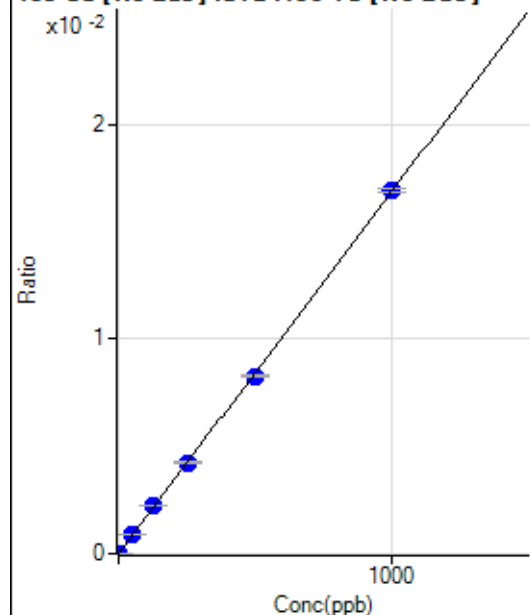
$$DL = 0.005613$$

$$BEC = 0.01207$$

Weight: <None>

Min Conc: 0

108 Cd [No Gas] ISTD :159 Tb [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	30.55	0.0000	P	29.8
2	☐	1.000	1.004	441.68	0.0000	P	7.5
3	☐	50.000	51.765	21740.55	0.0009	P	0.8
4	☐	125.000	130.740	54968.77	0.0022	P	0.8
5	☐	250.000	251.973	105565.73	0.0042	P	0.5
6	☐	500.000	490.985	205041.27	0.0083	P	1.7
7	☐	1000.000	1003.208	411178.16	0.0169	P	1.1
8	☐			143.06	0.0000	P	22.3

$$y = 1.6855\text{E-}005 * x + 1.2532\text{E-}006$$

$$R = 0.9999$$

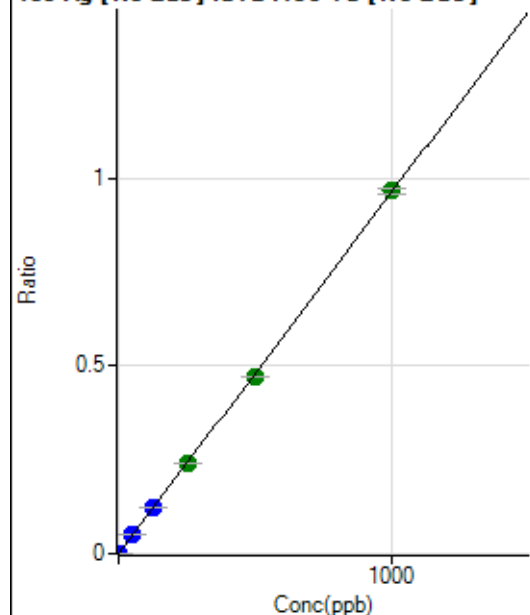
$$DL = 0.06649$$

$$BEC = 0.07435$$

Weight: <None>

Min Conc: 0

109 Ag [No Gas] ISTD :159 Tb [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	125.01	0.0000	P	18.8
2	☐	1.000	0.860	20218.02	0.0008	P	4.1
3	☐	50.000	52.332	1252477.41	0.0503	P	0.9
4	☐	125.000	129.323	3100974.09	0.1244	P	0.4
5	☐	250.000	248.757	5945199.31	0.2392	A	0.6
6	☐	500.000	489.565	11665040.19	0.4708	A	0.5
7	☐	1000.000	1004.871	23500340.63	0.9664	A	1.2
8	☐			4009.04	0.0002	P	2.4

$$y = 9.6175\text{E-}004 * x + 5.1162\text{E-}006$$

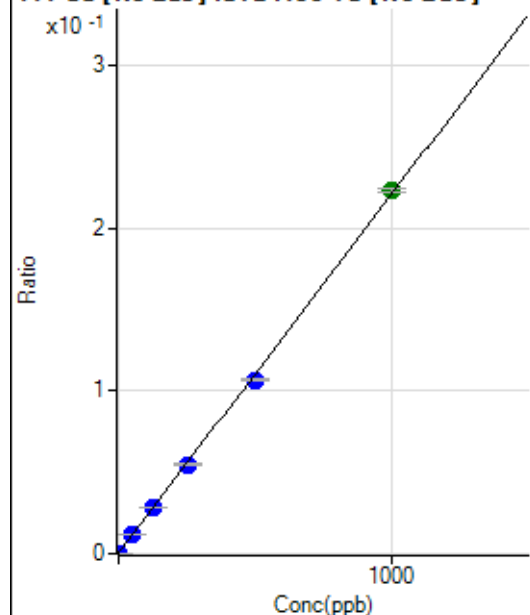
$$R = 0.9999$$

$$DL = 0.002996$$

$$BEC = 0.00532$$

Weight: <None>

Min Conc: 0

111 Cd [No Gas] ISTD :159 Tb [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	7149.46	0.0003	P	3.0
2	☐	1.000	1.077	12862.23	0.0005	P	3.8
3	☐	50.000	51.456	289581.46	0.0116	P	0.9
4	☐	125.000	127.396	707595.04	0.0284	P	0.4
5	☐	250.000	247.207	1361761.32	0.0548	P	0.7
6	☐	500.000	481.434	2637131.46	0.1064	P	1.0
7	☐	1000.000	1009.609	5420206.23	0.2229	A	1.0
8	☐			8725.01	0.0004	P	1.9

$$y = 2.2049\text{E-}004 * x + 2.9233\text{E-}004$$

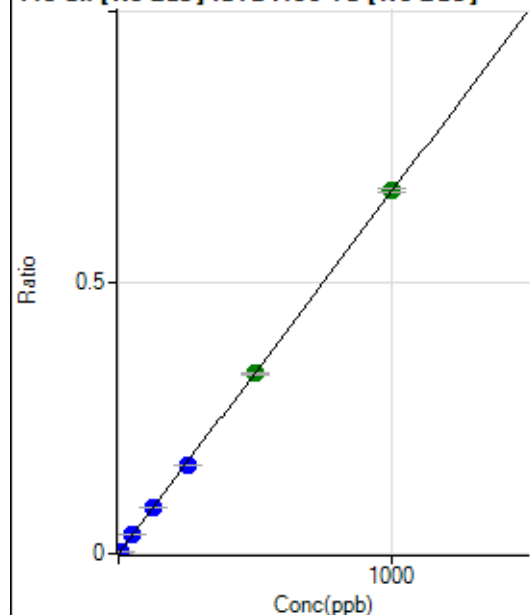
$$R = 0.9997$$

$$DL = 0.1192$$

$$BEC = 1.326$$

Weight: <None>

Min Conc: 0

118 Sn [No Gas] ISTD :159 Tb [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1625.17	0.0001	P	5.9
2	☐	5.000	5.101	84162.61	0.0035	P	1.7
3	☐	50.000	50.988	847053.84	0.0340	P	0.7
4	☐	125.000	126.759	2107448.90	0.0845	P	0.4
5	☐	250.000	245.220	4062012.63	0.1635	P	1.4
6	☐	500.000	497.280	8210662.25	0.3314	A	0.8
7	☐	1000.000	1002.285	16241106.79	0.6679	A	1.1
8	☐			10648.90	0.0005	P	1.3

$$y = 6.6634\text{E-}004 * x + 6.6440\text{E-}005$$

$$R = 1.0000$$

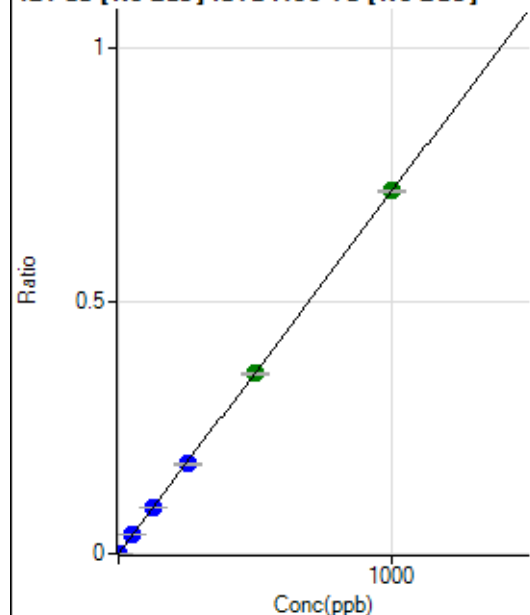
$$DL = 0.01754$$

$$BEC = 0.09971$$

Weight: <None>

Min Conc: 0

121 Sb [No Gas] ISTD :159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	375.03	0.0000	P	15.1
2	☐	2.000	2.007	35289.87	0.0015	P	0.6
3	☐	50.000	50.823	906354.99	0.0364	P	1.2
4	☐	125.000	126.745	2264241.11	0.0908	P	0.8
5	☐	250.000	247.081	4399106.65	0.1770	P	1.3
6	☐	500.000	497.062	8822749.94	0.3561	A	0.7
7	☐	1000.000	1001.940	17455403.52	0.7178	A	0.6
8	☐			18537.99	0.0008	P	7.1

$$y = 7.1643\text{E-}004 * x + 1.5355\text{E-}005$$

$$R = 1.0000$$

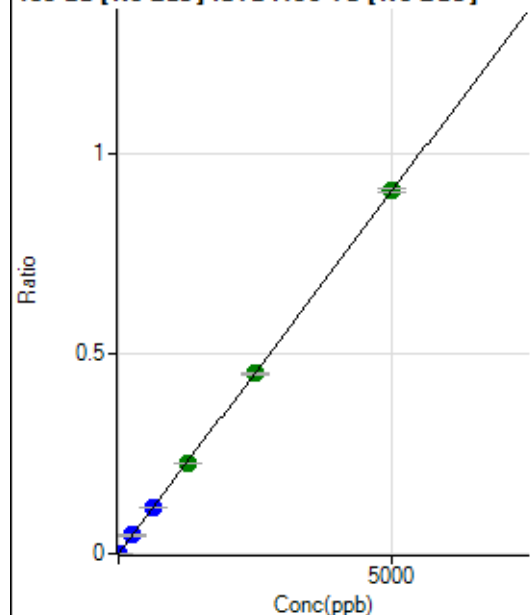
$$DL = 0.009694$$

$$BEC = 0.02143$$

Weight: <None>

Min Conc: 0

135 Ba [No Gas] ISTD :159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	125.01	0.0000	P	25.3
2	☐	10.000	10.492	46369.89	0.0019	P	0.5
3	☐	250.000	253.002	1142689.05	0.0459	P	1.2
4	☐	625.000	633.887	2868422.00	0.1151	P	0.8
5	☐	1250.000	1242.740	5605017.62	0.2256	A	0.9
6	☐	2500.000	2482.593	11163518.30	0.4506	A	0.9
7	☐	5000.000	5009.257	22107236.78	0.9092	A	0.9
8	☐			5215.09	0.0002	P	4.1

$$y = 1.8150\text{E-}004 * x + 5.0992\text{E-}006$$

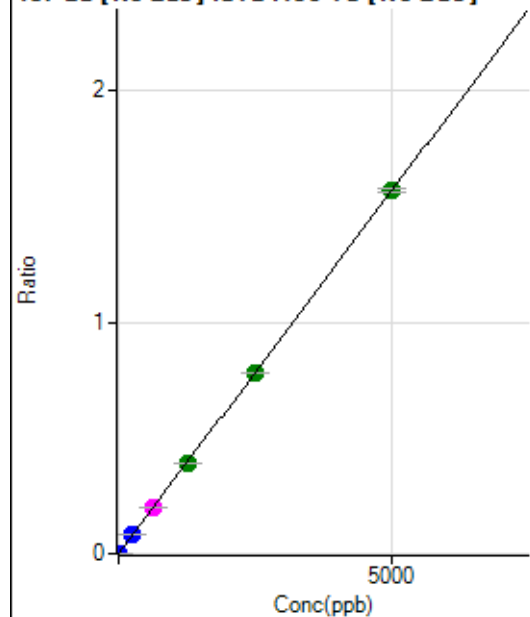
$$R = 1.0000$$

$$DL = 0.02135$$

$$BEC = 0.0281$$

Weight: <None>

Min Conc: 0

137 Ba [No Gas] ISTD :159 Tb [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	225.01	0.0000	P	20.7
2	☐	10.000	10.412	79396.40	0.0033	P	1.7
3	☐	250.000	255.108	1987609.66	0.0799	P	0.7
4	☐	625.000	635.635	4961624.03	0.1990	M	0.5
5	☐	1250.000	1242.047	9663323.56	0.3889	A	0.6
6	☐	2500.000	2497.747	19374147.31	0.7820	A	0.4
7	☐	5000.000	5001.529	38076245.30	1.5659	A	1.0
8	☐			8786.44	0.0004	P	2.8

$$y = 3.1308\text{E-}004 * x + 9.2101\text{E-}006$$

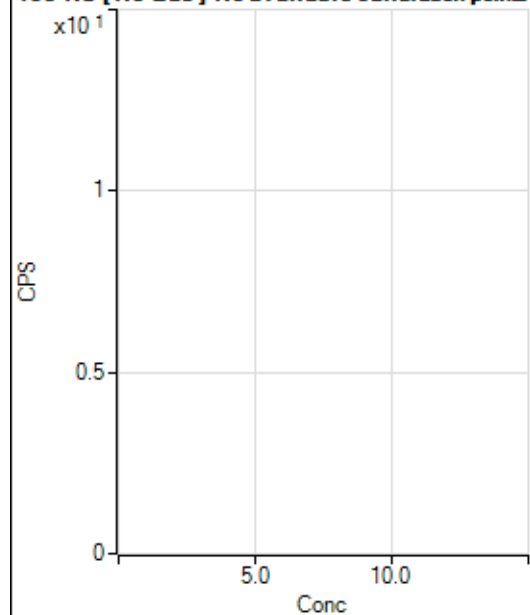
$$R = 1.0000$$

$$DL = 0.0183$$

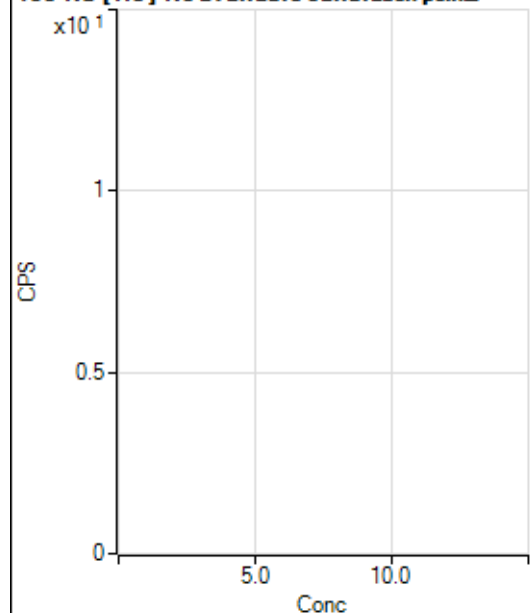
$$BEC = 0.02942$$

Weight: <None>

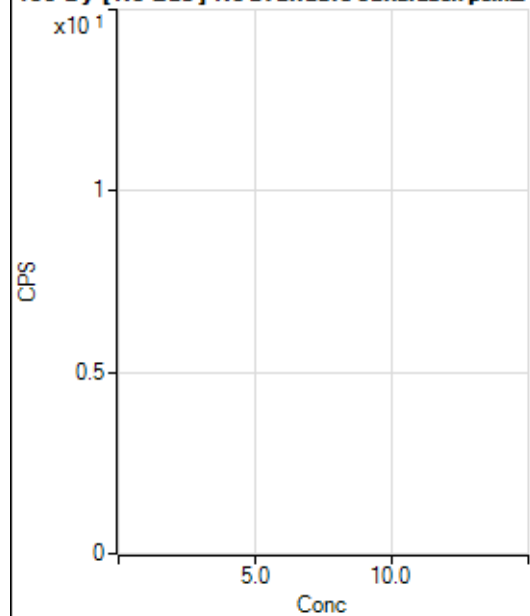
Min Conc: 0

150 Nd [No Gas] No available calibration points

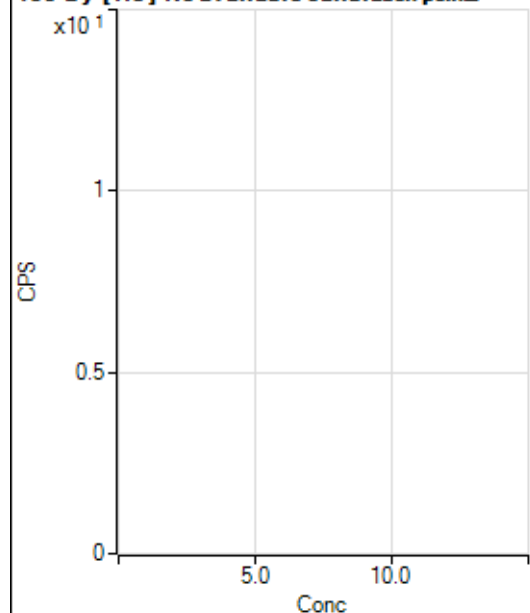
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			13.33		P	50.0
2	☐			24.44		P	78.7
3	☐			131.12		P	15.5
4	☐			297.79		P	11.5
5	☐			528.92		P	7.6
6	☐			1006.74		P	2.9
7	☐			2053.56		P	1.7
8	☐			235.57		P	14.2

150 Nd [He] No available calibration points

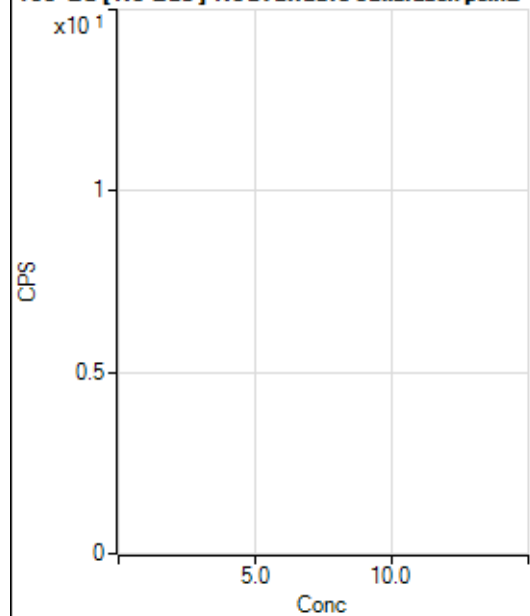
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			21.11		P	9.1
2	☐			8.89		P	21.6
3	☐			16.67		P	20.0
4	☐			33.33		P	26.5
5	☐			68.89		P	5.6
6	☐			95.56		P	12.2
7	☐			190.00		P	8.8
8	☐			92.22		P	29.2

156 Dy [No Gas] No available calibration points

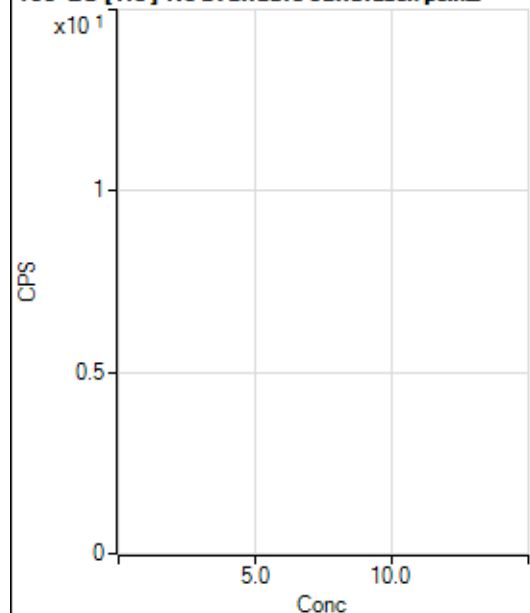
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			44.45		P	92.5
2	☐			38.89		P	44.6
3	☐			100.00		P	16.7
4	☐			108.34		P	35.2
5	☐			155.57		P	21.7
6	☐			272.24		P	24.9
7	☐			502.81		P	6.7
8	☐			127.78		P	15.1

156 Dy [He] No available calibration points

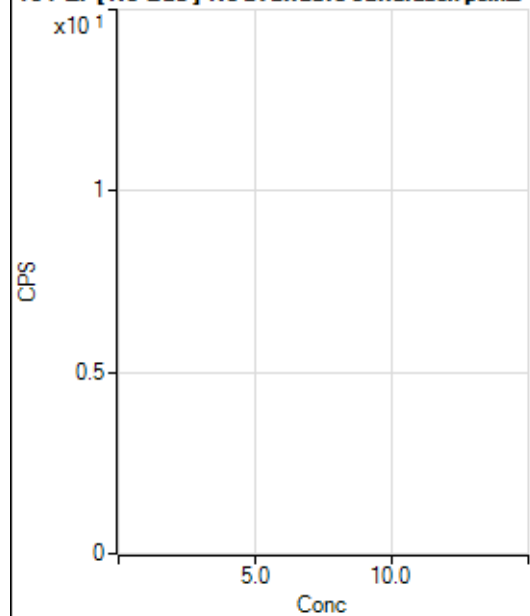
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			30.00		P	11.1
2	☐			18.89		P	36.7
3	☐			61.11		P	26.9
4	☐			100.00		P	28.9
5	☐			140.01		P	28.9
6	☐			222.23		P	7.4
7	☐			452.24		P	4.9
8	☐			65.56		P	17.9

160 Gd [No Gas] Noavailable calibration poin_

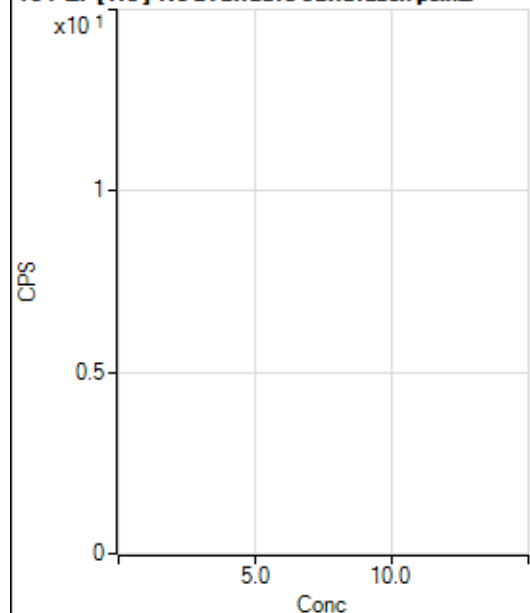
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			219.46		P	19.1
2	☐			238.91		P	32.4
3	☐			244.46		P	5.2
4	☐			238.90		P	26.2
5	☐			283.35		P	10.6
6	☐			263.90		P	7.9
7	☐			341.69		P	10.6
8	☐			247.24		P	15.9

160 Gd [He] No available calibration points

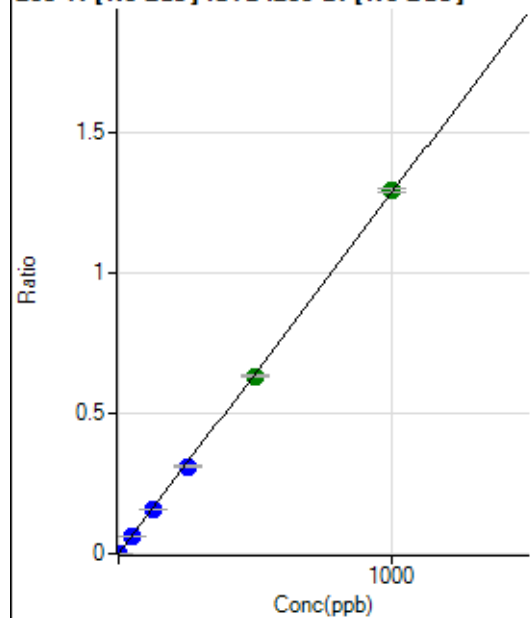
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			456.68		P	11.7
2	☐			424.46		P	8.2
3	☐			397.79		P	10.8
4	☐			410.01		P	12.7
5	☐			408.91		P	10.6
6	☐			442.24		P	11.3
7	☐			443.35		P	8.5
8	☐			425.57		P	13.5

164 Er [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			138.89		P	3.5
2	☐			133.34		P	22.5
3	☐			158.34		P	22.9
4	☐			127.79		P	16.4
5	☐			163.90		P	5.9
6	☐			247.24		P	27.5
7	☐			169.45		P	17.3
8	☐			122.23		P	7.9

164 Er [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			95.56		P	14.1
2	☐			94.45		P	20.7
3	☐			87.78		P	5.8
4	☐			85.56		P	11.9
5	☐			101.11		P	34.3
6	☐			116.67		P	17.1
7	☐			114.45		P	13.1
8	☐			111.11		P	28.4

203 Tl [No Gas] ISTD :209 Bi [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	883.40	0.0001	P	2.6
2	☐	1.000	0.967	19796.01	0.0013	P	0.6
3	☐	50.000	48.968	974213.25	0.0630	P	0.5
4	☐	125.000	122.907	2430410.34	0.1580	P	0.5
5	☐	250.000	242.542	4741202.15	0.3117	P	0.6
6	☐	500.000	492.462	9476256.55	0.6328	A	0.4
7	☐	1000.000	1005.947	18421376.63	1.2926	A	0.9
8	☐			4575.99	0.0004	P	0.4

$$y = 0.0013 * x + 5.7332E-005$$

$$R = 0.9999$$

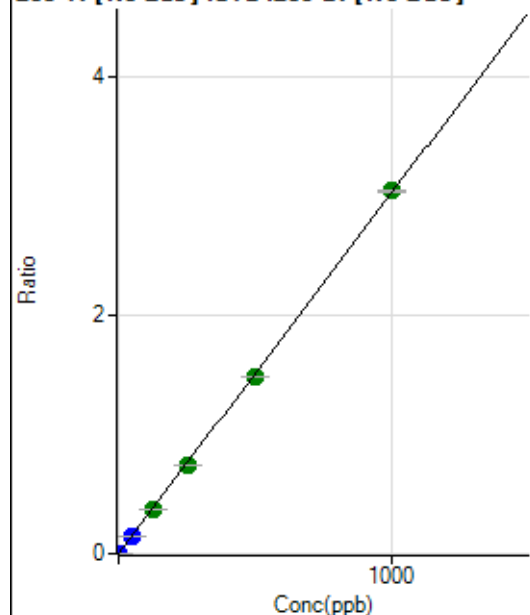
$$DL = 0.003459$$

$$BEC = 0.04462$$

Weight: <None>

Min Conc: 0

205 Tl [No Gas] ISTD :209 Bi [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1408.48	0.0001	P	4.3
2	☐	1.000	0.979	46571.50	0.0031	P	2.8
3	☐	50.000	49.044	2298615.70	0.1486	P	0.5
4	☐	125.000	122.443	5705084.11	0.3708	A	0.2
5	☐	250.000	244.203	11248393.31	0.7395	A	0.7
6	☐	500.000	491.486	22285736.78	1.4883	A	0.6
7	☐	1000.000	1006.074	43415310.34	3.0464	A	0.7
8	☐			10115.43	0.0009	P	2.4

$$y = 0.0030 * x + 9.1368E-005$$

$$R = 0.9999$$

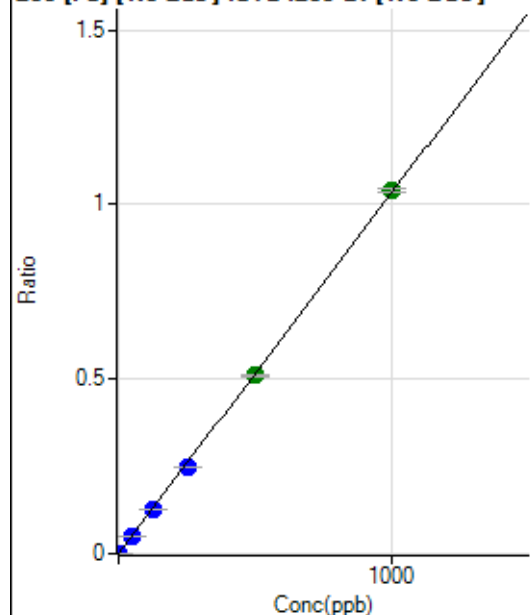
$$DL = 0.003907$$

$$BEC = 0.03018$$

Weight: <None>

Min Conc: 0

206 [Pb] [No Gas] ISTD :209 Bi [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1537.17	0.0001	P	11.2
2	☐	1.000	0.958	16594.13	0.0011	P	1.0
3	☐	50.000	48.959	783452.89	0.0506	P	0.6
4	☐	125.000	123.943	1970075.35	0.1281	P	0.6
5	☐	250.000	239.498	3762373.67	0.2474	P	1.3
6	☐	500.000	493.374	7628769.67	0.5095	A	0.5
7	☐	1000.000	1006.123	14804345.59	1.0388	A	1.1
8	☐			49349.10	0.0042	P	1.6

$$y = 0.0010 * x + 9.9849E-005$$

$$R = 0.9999$$

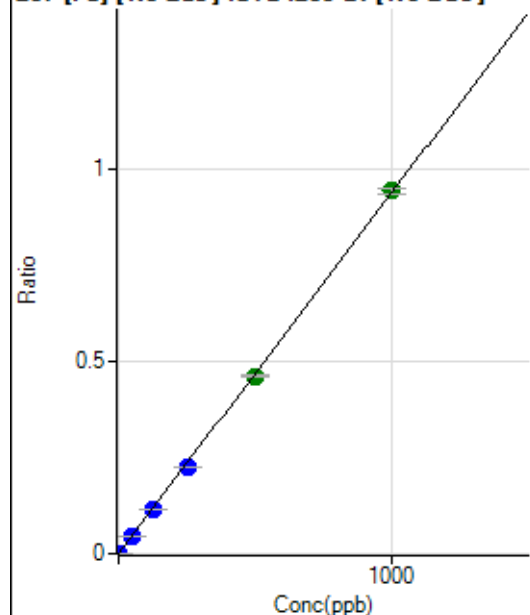
$$DL = 0.03262$$

$$BEC = 0.09672$$

Weight: <None>

Min Conc: 0

207 [Pb] [No Gas] ISTD :209 Bi [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1277.88	0.0001	P	9.8
2	☐	1.000	0.985	15309.26	0.0010	P	1.6
3	☐	50.000	48.981	710191.07	0.0459	P	0.8
4	☐	125.000	123.557	1779648.84	0.1157	P	0.7
5	☐	250.000	240.856	3428827.13	0.2254	P	0.9
6	☐	500.000	492.103	6895063.00	0.4605	A	1.3
7	☐	1000.000	1006.466	13421287.22	0.9417	A	1.3
8	☐			46314.30	0.0040	P	3.1

$$y = 9.3559\text{E-}004 * x + 8.2997\text{E-}005$$

$$R = 0.9999$$

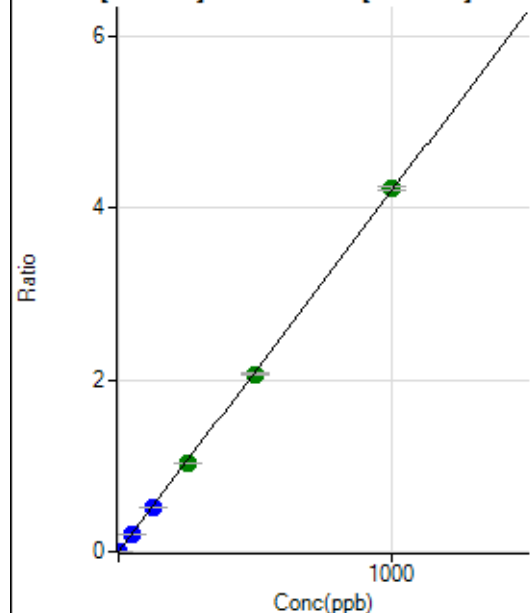
$$DL = 0.02596$$

$$BEC = 0.08871$$

Weight: <None>

Min Conc: 0

208 Pb [No Gas] ISTD :209 Bi [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	5395.01	0.0004	P	5.5
2	☐	1.000	0.967	67236.04	0.0044	P	1.5
3	☐	50.000	49.104	3195994.19	0.2066	P	0.6
4	☐	125.000	123.524	7987304.41	0.5192	P	0.2
5	☐	250.000	243.437	15558289.13	1.0229	A	0.4
6	☐	500.000	492.735	30995397.74	2.0700	A	0.8
7	☐	1000.000	1005.503	60196160.38	4.2238	A	1.0
8	☐			203514.22	0.0174	P	1.6

$$y = 0.0042 * x + 3.5025\text{E-}004$$

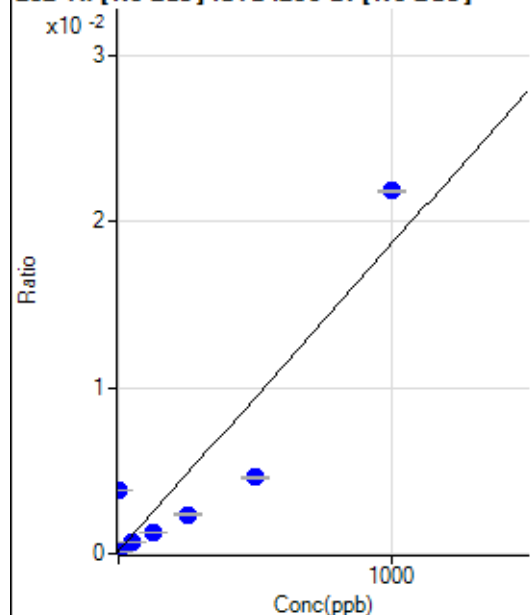
$$R = 0.9999$$

$$DL = 0.01379$$

$$BEC = 0.08339$$

Weight: <None>

Min Conc: 0

²³²Th [No Gas] ISTD :²⁰⁹Bi [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2563.29	0.0002	P	1.7
2	☐	1.000	197.911	58335.72	0.0038	P	1.5
3	☐	50.000	26.965	10291.40	0.0007	P	1.8
4	☐	125.000	59.381	19463.17	0.0013	P	1.2
5	☐	250.000	119.117	36055.71	0.0024	P	0.4
6	☐	500.000	238.916	68689.45	0.0046	P	0.8
7	☐	1000.000	1172.420	311563.27	0.0219	P	0.7
8	☐			2963.37	0.0003	P	3.3

$$y = 1.8503\text{E-}005 * x + 1.6633\text{E-}004$$

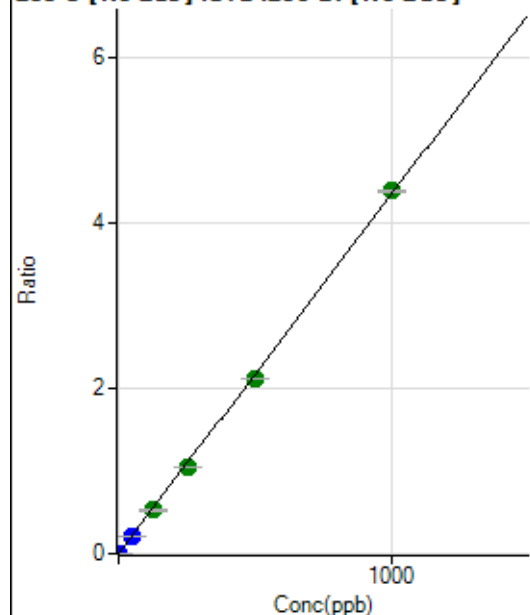
$$R = 0.9204$$

$$DL = 0.4457$$

$$BEC = 8.989$$

Weight: <None>

Min Conc: 0

²³⁸U [No Gas] ISTD :²⁰⁹Bi [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	3239.44	0.0002	P	3.3
2	☐	1.000	0.943	65792.13	0.0043	P	0.8
3	☐	50.000	47.132	3177747.05	0.2054	P	1.4
4	☐	125.000	120.559	8078514.85	0.5251	A	0.6
5	☐	250.000	240.518	15931960.08	1.0474	A	0.6
6	☐	500.000	488.130	31828408.70	2.1255	A	0.4
7	☐	1000.000	1009.004	62613813.90	4.3934	A	0.9
8	☐			11483.29	0.0010	P	3.6

$$y = 0.0044 * x + 2.1022\text{E-}004$$

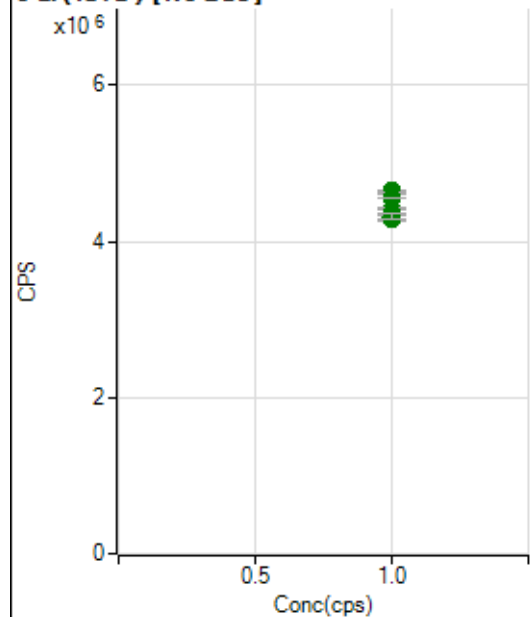
$$R = 0.9998$$

$$DL = 0.004816$$

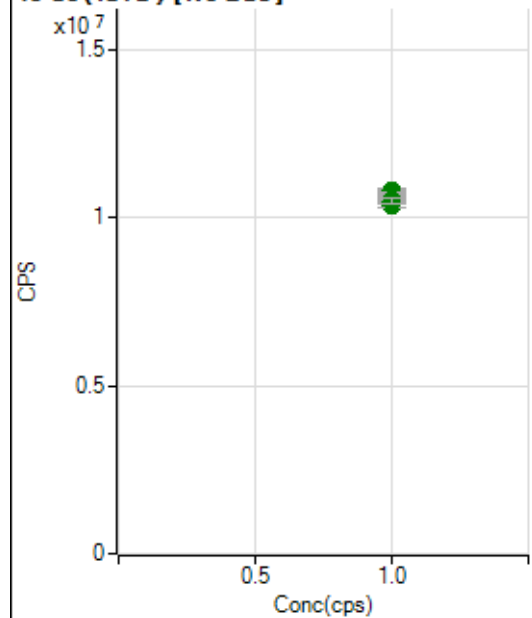
$$BEC = 0.04828$$

Weight: <None>

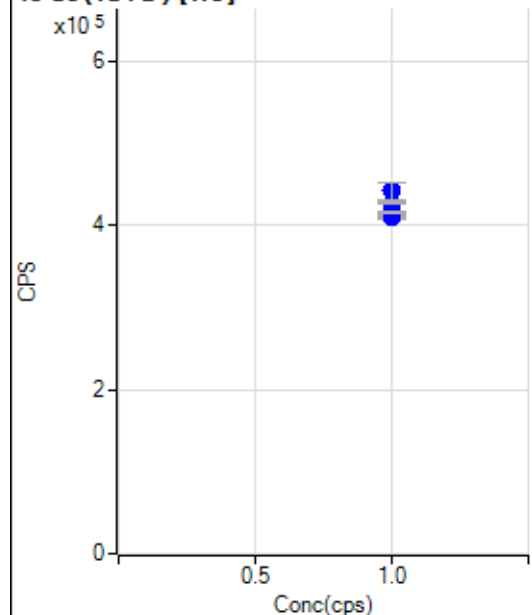
Min Conc: 0

6 Li (ISTD) [No Gas]

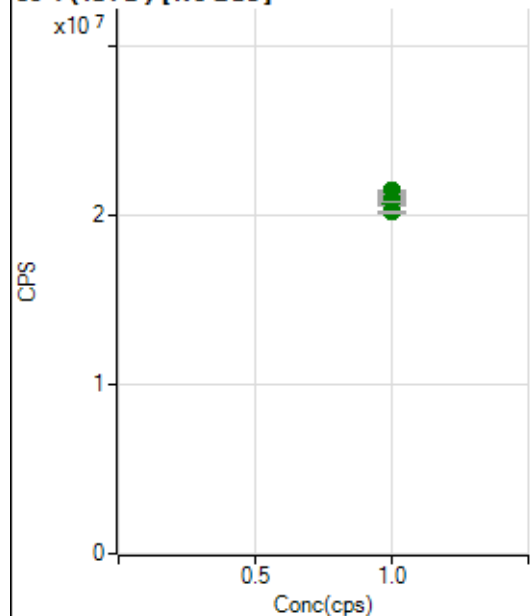
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4646661.67		A	0.8
2	☐	1.000		4557079.06		A	0.3
3	☐	1.000		4609541.84		A	0.6
4	☐	1.000		4562420.31		A	0.3
5	☐	1.000		4420076.50		A	0.8
6	☐	1.000		4354195.66		A	0.4
7	☐	1.000		4273275.32		A	1.1
8	☐	1.000		4319811.67		A	2.0

45 Sc (ISTD) [No Gas]

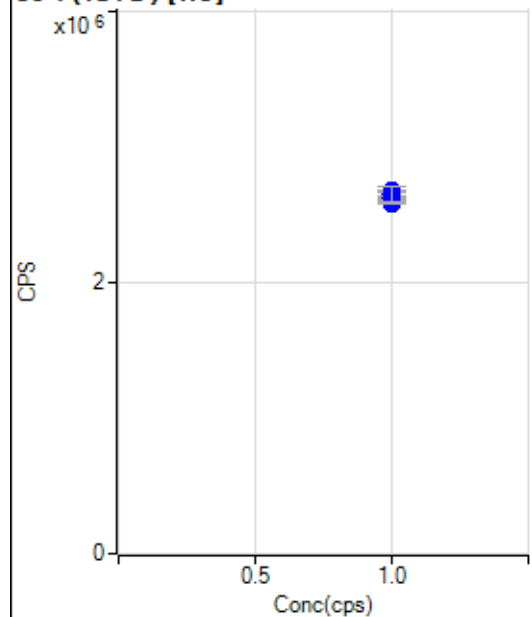
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		10713104.93		A	1.3
2	☐	1.000		10758624.37		A	0.3
3	☐	1.000		10781520.73		A	1.0
4	☐	1.000		10732600.67		A	0.5
5	☐	1.000		10458051.36		A	0.5
6	☐	1.000		10501814.12		A	0.4
7	☐	1.000		10369727.23		A	1.2
8	☐	1.000		10479465.68		A	1.4

45 Sc (ISTD) [He]

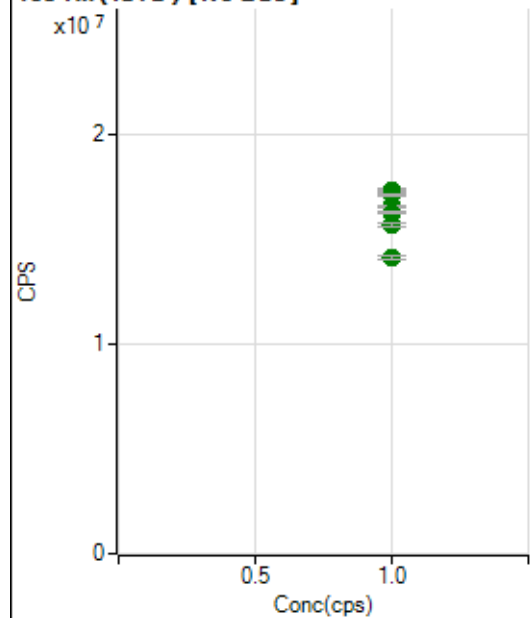
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		414584.62		P	0.3
2	☐	1.000		426650.37		P	0.7
3	☐	1.000		414272.82		P	0.7
4	☐	1.000		412241.96		P	1.4
5	☐	1.000		408921.38		P	0.9
6	☐	1.000		412146.24		P	0.6
7	☐	1.000		415290.03		P	0.8
8	☐	1.000		441662.63		P	4.7

89 Y (ISTD) [No Gas]

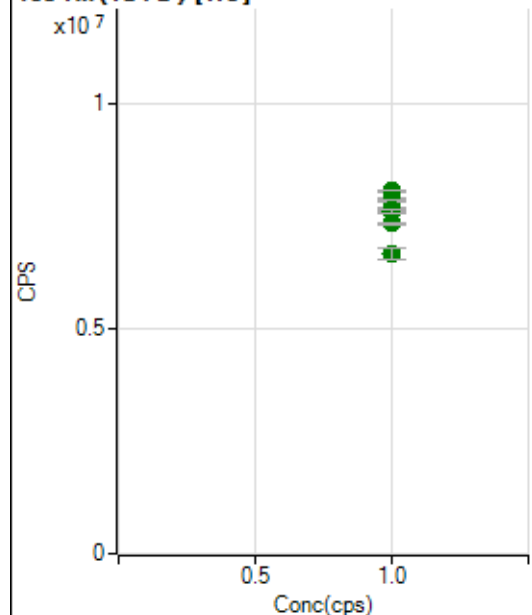
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		20930717.74		A	2.1
2	☐	1.000		20989274.96		A	0.2
3	☐	1.000		21421407.74		A	0.3
4	☐	1.000		21202806.63		A	0.3
5	☐	1.000		20890593.02		A	0.5
6	☐	1.000		20824638.16		A	0.6
7	☐	1.000		20654854.69		A	1.0
8	☐	1.000		20167483.86		A	0.5

89 Y(ISTD) [He]

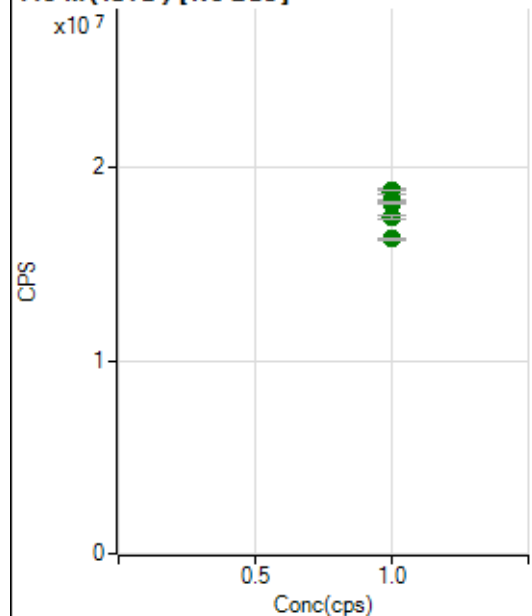
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2593936.82		P	0.4
2	☐	1.000		2673342.49		P	0.8
3	☐	1.000		2621663.07		P	0.4
4	☐	1.000		2617695.26		P	0.7
5	☐	1.000		2597523.94		P	0.6
6	☐	1.000		2622156.87		P	1.2
7	☐	1.000		2584860.48		P	0.4
8	☐	1.000		2653241.68		P	4.2

103 Rh(ISTD) [No Gas]

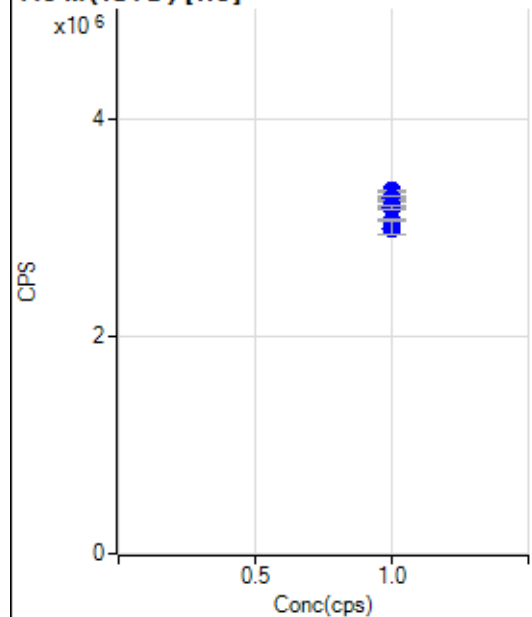
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		17240612.37		A	1.5
2	☐	1.000		17144026.42		A	0.2
3	☐	1.000		17273810.63		A	0.8
4	☐	1.000		17093071.04		A	0.5
5	☐	1.000		16552318.43		A	0.5
6	☐	1.000		16245230.05		A	0.8
7	☐	1.000		15643134.90		A	1.4
8	☐	1.000		14080403.61		A	1.1

103 Rh (ISTD) [He]

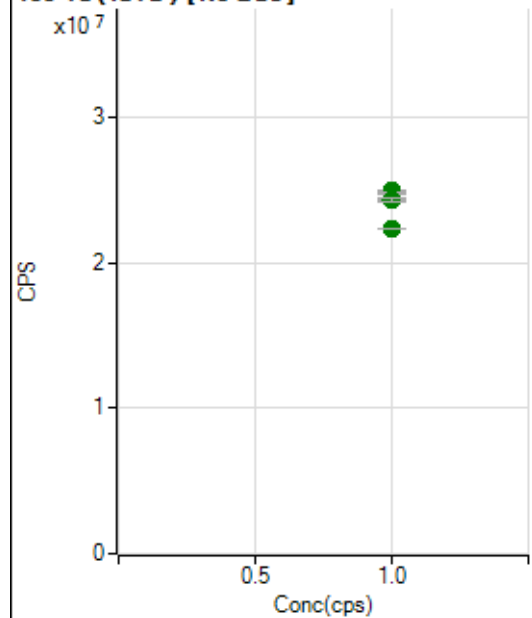
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8062300.02		A	0.7
2	☐	1.000		8061771.61		A	0.2
3	☐	1.000		7881785.58		A	0.6
4	☐	1.000		7841941.34		A	0.4
5	☐	1.000		7643751.14		A	1.0
6	☐	1.000		7599205.93		A	0.8
7	☐	1.000		7342760.03		A	0.4
8	☐	1.000		6660778.93		A	4.0

115 In (ISTD) [No Gas]

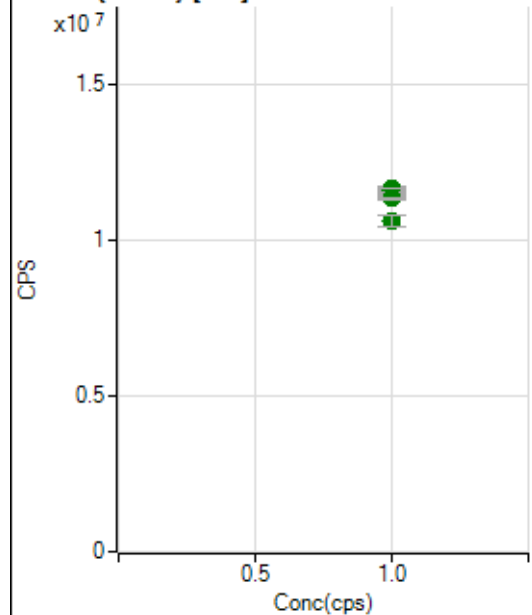
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		18779892.52		A	1.4
2	☐	1.000		18649514.86		A	0.3
3	☐	1.000		18817701.00		A	0.1
4	☐	1.000		18730235.76		A	0.9
5	☐	1.000		18371201.99		A	0.3
6	☐	1.000		18194793.60		A	0.4
7	☐	1.000		17473433.77		A	1.1
8	☐	1.000		16319716.72		A	0.8

115 In (ISTD) [He]

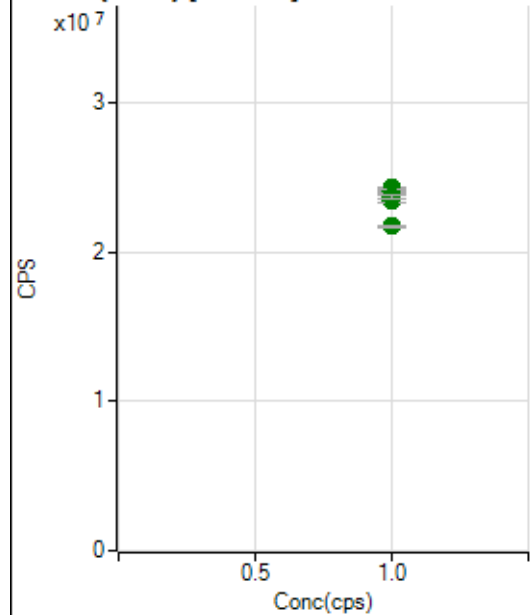
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3254904.93		P	0.9
2	☐	1.000		3339854.45		P	0.3
3	☐	1.000		3275286.32		P	0.5
4	☐	1.000		3274721.91		P	0.6
5	☐	1.000		3197035.36		P	0.5
6	☐	1.000		3189061.35		P	0.7
7	☐	1.000		3066607.23		P	0.7
8	☐	1.000		2998081.10		P	3.7

159 Tb (ISTD) [No Gas]

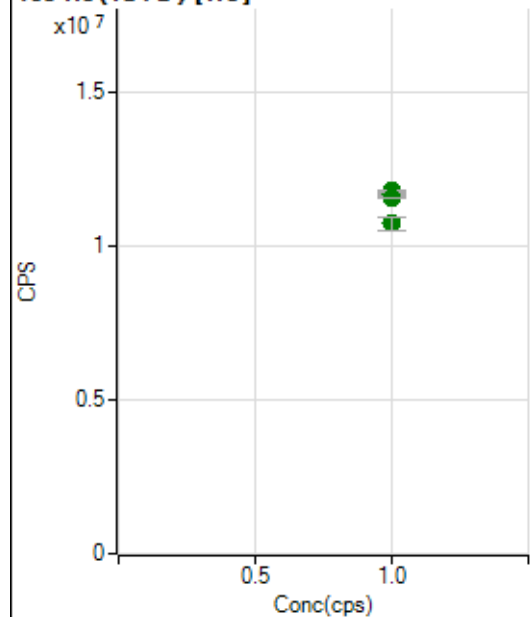
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		24465624.08		A	1.7
2	☐	1.000		24287100.19		A	1.0
3	☐	1.000		24883562.13		A	0.8
4	☐	1.000		24930991.30		A	0.2
5	☐	1.000		24849947.13		A	0.4
6	☐	1.000		24774828.80		A	0.7
7	☐	1.000		24317425.47		A	1.3
8	☐	1.000		22332586.61		A	0.2

159 Tb (ISTD) [He]

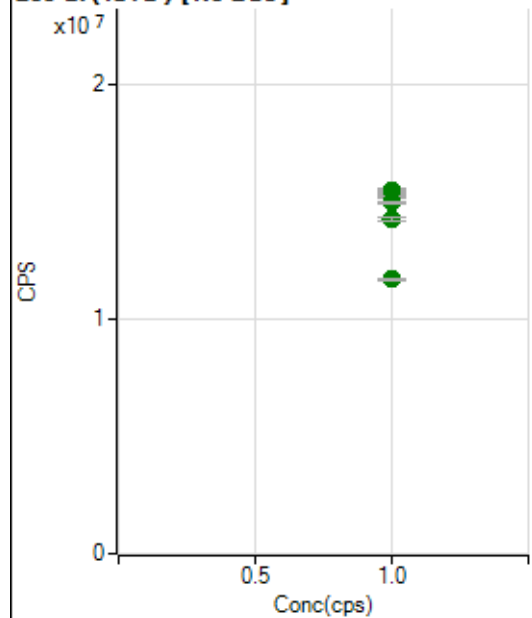
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11465982.61		A	0.3
2	☐	1.000		11556379.14		A	0.5
3	☐	1.000		11452164.55		A	0.1
4	☐	1.000		11638032.60		A	1.4
5	☐	1.000		11509970.66		A	1.3
6	☐	1.000		11612244.27		A	1.1
7	☐	1.000		11324056.36		A	0.1
8	☐	1.000		10605663.94		A	3.7

165 Ho (ISTD) [No Gas]

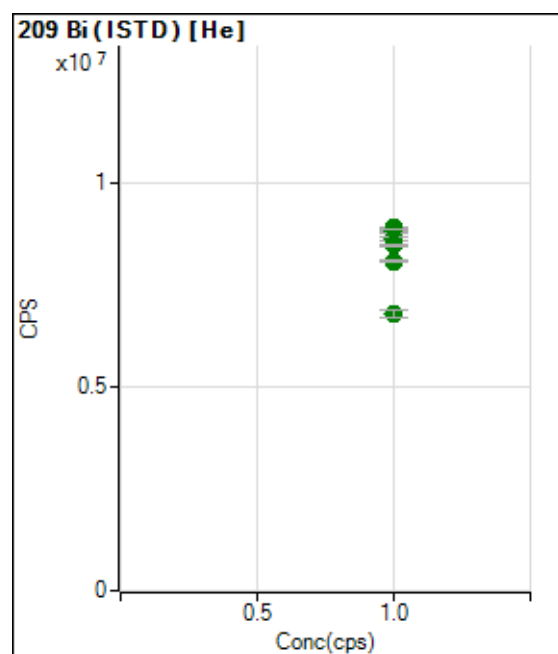
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		23674590.80		A	1.4
2	☐	1.000		23430102.78		A	0.8
3	☐	1.000		23925650.36		A	0.2
4	☐	1.000		24267128.15		A	0.4
5	☐	1.000		24152814.26		A	0.8
6	☐	1.000		24069003.84		A	0.8
7	☐	1.000		23656521.88		A	1.4
8	☐	1.000		21686324.79		A	0.9

165 Ho (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		11704077.19		A	0.1
2	☐	1.000		11657287.74		A	0.3
3	☐	1.000		11661872.12		A	0.9
4	☐	1.000		11815216.49		A	0.5
5	☐	1.000		11705406.49		A	0.9
6	☐	1.000		11801899.55		A	0.7
7	☐	1.000		11577130.39		A	0.3
8	☐	1.000		10741594.01		A	3.9

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		15411968.66		A	1.7
2	☐	1.000		15236736.16		A	0.7
3	☐	1.000		15469416.58		A	0.1
4	☐	1.000		15384342.83		A	0.6
5	☐	1.000		15210789.22		A	0.4
6	☐	1.000		14974133.39		A	0.6
7	☐	1.000		14252052.98		A	1.1
8	☐	1.000		11710460.24		A	0.5



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		8898337.16		A	0.5
2	☐	1.000		8850939.73		A	0.7
3	☐	1.000		8803708.69		A	0.4
4	☐	1.000		8828063.89		A	1.0
5	☐	1.000		8618538.76		A	1.3
6	☐	1.000		8473874.87		A	0.7
7	☐	1.000		8088161.68		A	0.3
8	☐	1.000		6799211.36		A	3.1

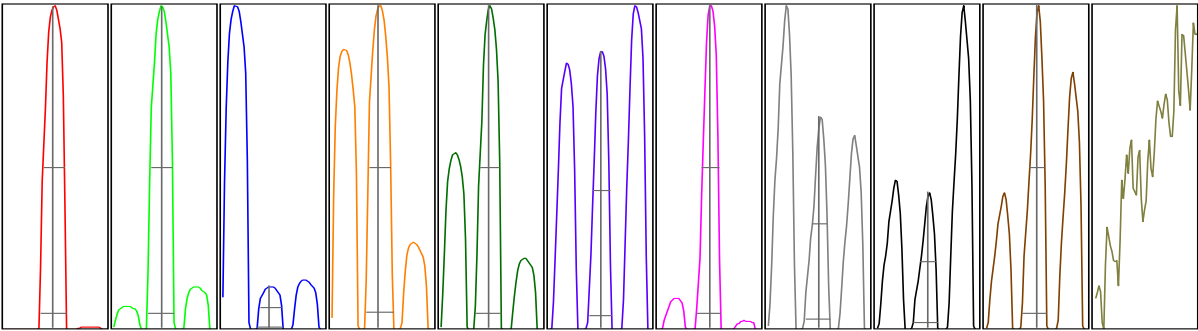
US EPA Tune Check Sample Report

Batch Folder D:\ICP-MS Data\P7120219MS3.b
Report Comment
Instrument Name G8403A JP14410463

[No Gas]				
Mass	Count	RSD%	RSD%	RSD%
	(Mean)	(Actual)	(Required)	(Flag)
9	18882	0.86	5.00	
24	1772388	1.16	5.00	
25	237350	1.18	5.00	
26	269301	1.43	5.00	
59	176807	1.38	5.00	
113	23921	1.12	5.00	
115	281723	1.34	5.00	
206	62698	1.01	5.00	
207	57217	1.06	5.00	
208	136345	0.98	5.00	
220	134	2.77		

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
9	18843	19150	18898	18727	18792
24	1783778	1796297	1777597	1743633	1760633
25	238390	240805	238377	233597	235583
26	271594	274006	270007	264574	266326
59	177816	179972	176837	173279	176133
113	24127	24250	23900	23659	23666
115	284399	286559	281319	277385	278951
206	62362	63538	63097	61906	62587
207	57470	57775	57564	56256	57019
208	136254	137993	137131	134445	135900
220	132	128	135	137	137

Integration Time [sec] = 0.1



Mass	Peak Height	Axis (Actual)	Axis (Required)	Axis (Flag)	Width-X% (Actual)	Width-X% (Required)	Width- X% (Flag)
9	31395	8.95	8.9 - 9.1		0.781	0.900	
24	2893482	23.95	23.9 - 24.1		0.783	0.900	
25	383743	24.90	24.9 - 25.1		0.745	0.900	
26	443531	25.90	25.9 - 26.1		0.818	0.900	
59	314162	58.95	58.9 - 59.1		0.759	0.900	
113	49341	113.05	112.9 - 113.1		0.684	0.900	
115	594205	115.05	114.9 - 115.1		0.703	0.900	
206	138712	206.05	205.9 - 206.1		0.733	0.900	
207	127040	207.05	206.9 - 207.1		0.698	0.900	
208	301114	208.05	207.9 - 208.1		0.715	0.900	
220			-				

X% = 5 Integration Time [sec] = 0.1 Acquisition Time [sec] = 268 Y Axis = Linear

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	7.9	V	Deflect	13.0	V
Extract 2	-145.0	V	Cell Entrance	-30	V	Plate Bias	-35	V
Omega Bias	-70	V	Cell Exit	-50	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	No		OctP Bias	-8.0	V	Energy Discrimination		5.0 V
He Flow	0.0	mL/min	OctP RF	160	V			

[He]

Mass	Count	RSD%	RSD%
	(Mean)	(Actual)	(Required)
59	42600	0.47	
89	553125	0.54	
205	56820	0.85	

Mass	Replicate 1 Count	Replicate 2 Count	Replicate 3 Count	Replicate 4 Count	Replicate 5 Count
59	42819	42762	42624	42441	42354
89	554414	556652	553716	552232	548608
205	57025	57245	56896	55989	56947

Integration Time [sec] = 0.1

Tune Parameters

Plasma Paramters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
RF Power	1600	W	Carrier Gas	0.80	L/min	S/C Temp		2 °C
RF Matching	1.80	V	Option Gas	0.0	%	Gas Switch		Dilution Gas
Smpl Depth	9.0	mm	Nebulizer Pump	0.10	rpm	Makeup/Dilution Gas		0.37 L/min

Lenses Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Extract 1	0.0	V	Omega Lens	8.2	V	Deflect	2.0	V
Extract 2	-150.0	V	Cell Entrance	-40	V	Plate Bias	-60	V
Omega Bias	-70	V	Cell Exit	-60	V			

Cell Parameters

ParameterName	Value	Unit	ParameterName	Value	Unit	ParameterName	Value	Unit
Use Gas	Yes		OctP Bias	-18.0	V	Energy Discrimination		5.0 V
He Flow	4.1	mL/min	OctP RF	200	V			